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LABOUR FLEXIBILITY AND WORKPLACE INDUSTRIAL RELATIONS: THE AUSTRALIAN EVIDENCE

Bill Harley



Labour Flexibility and Workplace Industrial Relations: The Australian Evidence

Bill Harley

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Abstract

This monograph is a contribution to the debates concerning "labour flexibility", which have emerged in the fields of management, industrial relations, sociology and political science during the 1980s. Theories of flexibility posit a transformation of work, as established ways of organising production become increasingly unsuitable means to deal with a rapidly changing environment, and are replace by new forms of technology, work organisation and labour market practices. While theories of flexibility have been immensely influential in informing labour market and industrial relations policies across the advanced capitalist economies, numerous problems concerning implications of flexibility remain unresolved. Authors associated with three theoretical schools - 'neo-managerialism', 'post-Fordism' and 'neo-Fordism' - have engaged in heated debates about what flexibility is, and about its economic and political implications. In particular, the implications of flexibility for the experience of work have been vigorously contested.

Resolution of the debates has been hindered by a lack of detailed empirically based studies of the nature and outcomes of flexibility. This paper seeks to redress this problem by subjecting a range of questions to empirical and theoretical scrutiny, using Australian data. Data from the Australian Workplace Industrial Relations Survey (AWIRS) are employed as a means to quantify the degree of different forms of flexibility present in Australian workplaces, and the associations between flexibility and a range of outcomes concerning workers. The AWIRS data are then supplemented with detailed data from a survey of law and accounting firms, as a means to add depth to the analysis and to explore patterns of causation involving flexibility and other phenomena. This analysis allows a number of the more important problems concerning flexibility to be resolved. Based on the findings of the paper, supplemented with recent insights from organisation theory, it is possible to provide a more useful theorisation of flexibility than is available in existing accounts. Further, the empirical and theoretical findings allow a firmly grounded assessment to be made of recent developments in Australian industrial relations policy.

1. Introduction

Flexibility has emerged as a key concept in debates about work and employment in the OECD countries since the mid-1980s, apparently motivated by the economic problems faced by many of the advanced economies since the 1970s (see: OECD 1986a,1986b & 1989). The perceived inefficacy of traditional macroeconomic policy initiatives has led to an increased emphasis on microeconomic reforms as a means to improve economic performance. As part of this shift in emphasis, a wide range of actors have advocated strategies aimed at increasing the flexibility of the organisation of work and employment.

Australia has been no exception to this trend. Theories advocating flexibility have been influential not only among academic researchers (see, for example, Bamber, 1990; Marden, 1989; and Rimmer and Zappala, 1988), but also in government, business and union circles (see: AMC, 1990; BCA, 1987; Minister for Industrial Relations, 1988; NLCC, 1987). Much of the thrust of recent labour market and industrial relations reform in Australia has been aimed at enhancing the flexibility of industry.

Two main arguments are made in favour of the pursuit of flexibility. The first is that it enhances the efficiency and productivity of industry. The second claim is that flexibility has the potential to profoundly change the nature of work by facilitating forms of production which require highly skilled and autonomous workers. It is argued that flexibility has the potential to transform work in ways which empower workers, enhance the experience of working life and contribute to greater harmony between employers and employees. This is said to have profound implications for the experience of work by individual workers, and also for their collective representative organisations in the form of trade unions.

Two main schools of theory have been responsible for promoting flexibility in industry, and each provides a quite distinctive account of the nature of flexibility and its implications for workers and unions. The first, labelled by some as "neomanagerialism" is associated with the work of Atkinson (1984, 1985, 1987) and the "flexible firm". The emphasis here is on labour market flexibility; on the capacity of managers to shift workers between jobs and tasks, to take on and lay off labour and to vary pay rates and working hours in line with the economic needs of the workplace.

This school conceptualises flexibility as a pragmatic managerial strategy, pursued as a means to cut costs and maintain profitability in a volatile and competitive

economic environment. "Neo-managerialists" argue that this emphasis on managerial prerogative may have negative consequences for labour in terms of decreased job security and a lack of autonomy, as well as marginalising the trade union movement, but they present such effects as costs which have to be borne in the interests of enhanced economic performance.

The second school is referred to as "post-Fordism" and is associated with the work of Piore and Sabel (1984), Mathews (1989a, 1989b,1990), Kern and Schumann (1987) and Streeck (1987). This school emphasises labour process flexibility. That is, it is concerned with flexibility in the various processes by which labour power is expended in the production of commodities, most notably the forms of technology and work organisation employed.

Authors associated with this school argue that flexibility is necessary for enhanced economic performance. However, they maintain that to be maximally flexible and productive, it is essential that workers be highly skilled and autonomous and be accorded a major role in determining how production is organised. Therefore, this version of flexibility is said to have economic benefits, but also to empower labour and enhance the experience of working life. Further, it is said to require a major reformulation of the role of trade unions in production, as relations between employers and employees shift from confrontation to co-operation.

A third school of theory, characterised as "neo-Fordist", does not celebrate or advocate flexibility, but exists largely as a critique of the other two schools. This approach is based on the insights of Marxian labour process theory. It apprehends both labour market and labour process forms of flexibility, and conceptualises them as ways in which employers cut costs and enhance managerial control of production. From this perspective, there may be economic benefits in flexibility from the point of view of capital, but they are won at the expense of increasingly degraded and deskilled forms of work and a shift in the balance of power towards capital which sees trade unions weakened.

There has been vigorous debate in the economics, industrial relations, industrial sociology and political science literature, between the advocates of flexibility and their critics. The debates have ranged widely, but four issues have been central. The first has concerned the meaning of flexibility. Specifically, there has been considerable debate about the possibility of defining flexibility meaningfully in the context of production.

The second point of contention is whether any of the three schools of theory actually has a grasp of reality in the sense that its conceptualisation of flexibility describes important aspects of contemporary production. That is, does a model based on any of the schools match key features of industry as a whole, or even specific parts of industry?

Thirdly, there has been debate about the implications of flexibility for labour. Specifically, the question of whether flexibility will enhance the experience of work and empower workers, or have the opposite effect, has been strongly contested. Of particular importance in this part of the debate has been the question of what flexibility means for the collective political representatives of labour in the form of the trade union movement. Further, the issue of whether flexibility and its impacts are differentially distributed on the basis of gender has been a point of contention.

The final question raised in the debates is whether flexibility really has the potential to enhance the productivity and efficiency of industry and thus to overcome the economic problems faced by the advanced capitalist economies.

That such fundamental questions remain contested provides the motivation and focus for this paper. There is ample evidence that the theories of flexibility under consideration have played a major role in informing the policy prescriptions of academics, unions, employer groups and government in Australia (Bamber et al. 1992). Further, these policy prescriptions have been translated into concrete changes in the mechanisms by which employment and the organisation of production are regulated. To the extent that the theories are flawed the policies are similarly likely to be flawed. It is therefore imperative that the theoretical debates about flexibility be subjected to rigorous analysis, and the implications of the pursuit of policies informed by them be fully explored. This is the fundamental rationale for this research.

This paper will not be concerned with the question of flexibility and economic performance. It simply is not possible to deal adequately with both the political and economic dimensions of the debates in a single research project. Given this constraint, a decision was made to concentrate on those aspects of the debate concerning questions of conflict, power and control at work; that is, political dimensions of flexibility.

Specifically, the central concern is to deal with the political dimensions of flexibility as they relate to "labour", defined in a general sense as those who sell their labour power. Of course, to consider the implications for employees necessitates simultaneous consideration of the role of employers, since it is the relation between these two entities which largely constitutes the politics of work. Therefore, the concern of the monograph is with questions of the distribution of power and resources between workers, as well as between employees and employers.

The main reason for this focus is that the majority of the literature concerning flexibility deals with the implications of flexibility for workers. Indeed, this remains perhaps the most hotly contested element of the debate. That the implications of flexibility for working people remain unclear is highly problematic. In effect, those who advocate increased flexibility are proposing policies in the absence of sound knowledge of what they will mean for the large proportion of people who are employees. Therefore, it is imperative in practical terms that the implications for labour be more fully explored.

Further, it makes no sense to attempt to study political aspects of work without considering the major actors involved in political conflict and exchange. The nexus of the politics of work is the employment relationship, and the major actors are labour and capital. These actors are important not just within workplaces, where the employment relationship exists, but also in politics more broadly defined. In Australia, policy making concerning many aspects of the organisation of production involves conflict and negotiation between unions and employer associations, which can be regarded as representatives of capital and labour. Indeed the two major political parties reflect (in a formal sense at least) the division between labour and capital.

It must be made clear that in considering the implications of flexibility for workers, this paper will not deal directly with issues concerning the trade union movement.

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This is largely due to space constraints. Those who are interested in this issue should refer to Hall and Harley (1993) and Harley (1994), both of which present detailed quantitative analyses of data on unions and labour flexibility.

The paper is divided into five chapters. Chapter Two reviews the three main theories of flexibility which appear in the literature and identifies problems which need to be resolved if sense is to be made of flexibility and its outcomes, thereby establishing a research agenda for the chapters which follow. In the third chapter, an analysis of data from the Australian Workplace Industrial Relations Survey (AWIRS) is presented, as a means to assess the prevalence of different forms of flexibility in Australian industry and to identify and quantify associations between flexibility and other phenomena. Chapter Four is a study of the finance sector, which seeks to explore causal relationships in the associations between flexibility and other phenomena and to provide a more detailed, qualitatively based, understanding of flexibility. The final chapter considers the theoretical and practical implications of the findings presented in the previous two chapters.

2. Theories of Labour Flexibility

Nearly a decade after coming to prominence, the concept of "labour flexibility" remains highly problematic, both in theoretical and practical terms. Despite the huge volume of literature devoted to the so-called "flexibility debate" (Barkin, 1987; Bramble, 1988; and Pollert, 1991), relatively little genuine progress has been made in resolving many of the key problems associated with the concept. The aim of this chapter is to consider the key problems concerning flexibility which remain in need of resolution.

The bulk of the discussion is devoted to a review of the three major theories of flexibility, which may be termed "neo-managerialism", "post-Fordism" and "neo-Fordism". The aim is to identify the points of disagreement between the schools of theory, and between each school and its critics, and to identify problems which each school raises but fails to resolve. In doing so, the chapter will identify aspects of the debates over flexibility which remain problematic, and which ought therefore to be dealt with. Three general questions guide the discussion. The first is: "What does flexibility mean?". The second is: "How can industry be said to be flexible?". The third question is: "What are the implications of flexibility for labour?".

THREE THEORETICAL ACCOUNTS OF FLEXIBILITY

Three main theoretical schools address the issue of flexibility in production. The first, labelled by some as "managerialist" (Bagguley 1991: 164) or "neomanagerialist" (Clegg 1990: 210) is typified by the work of Atkinson (1984, 1985a, 1985b, 1986, 1987) who has become the chief representative of this approach. The second approach will be referred to as "post-Fordist". It covers a range of variants, but is characterised by the work of Piore and Sabel (1984), Mathews (1989a, 1989b, 1990, 1992), Lash and Urry (1987), Katz (1985), Kern and Schumann (1987), Tolliday and Zeitlin (1986) and Streeck (1987). The third school to be considered is labelled by some as "neo-Marxian" (Clegg 1990: 211) and others as "neo-Fordist" Wood (1989b: 21). This school is characterised by the work of Aglietta (1979), Boreham (1991a), Bramble (1988), Bramble and Fieldes (1989, 1992) and Harvey (1989, 1991).

Discussion of each school will be structured around two general questions. Firstly, what do proponents of each school mean by the term "flexibility"? Specifically, this involves consideration of the emergence and characteristics of those phenomena which each school identifies as manifestations of flexibility. Secondly, what are the outcomes of flexibility for labour? More specifically, discussion will concern the

arguments made by proponents of each of the theories, and their critics, about the implications of flexibility for workers.

By examining the ways in which the theoretical schools deal with these questions, and considering the associated criticisms and debates, it will be demonstrated that each of the schools leaves crucial questions unanswered, and that each is to this extent inadequate. Resolution of these problematic aspects of the theories is a necessary step in understanding what flexibility means, in assessing the utility of each theory as a description of reality and as a guide to policy, and in seeking a more adequate theorisation of flexibility. Therefore, the discussion of the theories of flexibility in this section will provide a rationale for the project, and specify the problems which will be addressed in the chapters which follow.

Neo-Managerialism: Labour Market Flexibility as a Pragmatic Managerial Strategy

To an extent it may appear misleading to talk about a neo-managerialist "school" of theory, and it could be argued that to treat it as being of the same order of magnitude as the other two schools is questionable. Thompson and McHugh characterise it as "a management policy model [rather than] a grand theory" (1990: 215). This may reflect the fact that, in contrast to the other two schools, neo-managerialism has been constructed almost entirely by one author and is correspondingly rather less theoretically developed. Atkinson produced numerous publications in the mid-1980s, detailing his view of the emergence of new strategies in British enterprises, which he conceptualised in terms of a model of the "flexible firm" (Atkinson 1984, 1985a, 1985b, 1986, 1987; Atkinson and Gregory, 1986; Atkinson and Meager, 1986).

To the extent that other theorists have engaged with Atkinson, they have largely provided critiques which have attempted to demonstrate the limited utility and lack of theoretical robustness of his work, rather than attempting to build upon the insights which it provides or to develop a more comprehensive theoretical framework based on it (see for example: Pollert, 1988a and 1988b). Nonetheless, Atkinson's work has been extremely influential. His vision of flexibility has influenced policy debates internationally (OECD 1986a, 1989), and in the Australian context key elements appear to have been adopted by business groups, academics and the coalition parties (Bamber et al. 1992: 10-12). Further, a reading of the relevant literature indicates that the vision of flexibility proposed by Atkinson is quite distinct from other theorisations. In view of this distinctiveness, and the major influence which Atkinson's work has had on the debates surrounding flexibility, it is quite legitimate to treat this body of work as one of the major schools of thought concerning flexibility in production.

Atkinson (1985a) argues that three main factors have contributed to moves to greater flexibility in production. The first two concern economic difficulties experienced by the advanced economies in recent times. The contention that, since the late 1960s or early 1970s, the advanced capitalist economies have been in crisis (Boyer, 1987; Harvey, 1989; Piore and Sabel, 1984; Mathews, 1989a, 1989b) and that changes in the organisation of production are dictated by the need to overcome the crisis (Meulders and Wilkin 1987: 16) is indeed common to all three theories of flexibility. A feature which distinguishes the neo-managerialist perspective is a lack of detailed analysis of causes of crisis. As will be discussed below, both the post-

and neo-Fordist schools seek to theorise the crisis as arising from the way in which production and consumption have been organised in the past. In contrast, neomanagerialist theory essentially presents flexibility as a pragmatic managerial response (Bagguley 1991: 153) to a given set of circumstances, the cause of which is not at issue.

Atkinson (1985a, 1987) provides a brief, largely descriptive, account of economic pressures for greater flexibility. This is in terms of, firstly, generalised recession and, secondly, an increasingly competitive and volatile market environment. He argues that concern with flexibility can be traced back to the oil price shocks of 1973 and 1978, the resulting downturn in economic activity, and the widespread failure of the traditional instruments of economic fine-tuning to accommodate them (1987: 87). Recession is said to have made increased competitiveness a management priority, and in an environment unconducive to investment this has involved management reliance on increased labour productivity and reductions in unit labour cost (Atkinson 1985a: 8).

Pressure for greater flexibility is also said to derive from the "particularly unstable and (since 1945) unprecedented market conditions experienced in recent years" (Atkinson 1987: 88). Atkinson argues that, in addition to increased competition for product markets in the context of slow growth, markets have become more volatile, with a corresponding greater immediacy between the recognition of market opportunities or pressures and the need to respond to them (1987: 88). Uncertainty about demand has led to uncertainty about labour requirements, and employers have sought ways to make labour both cheaper and more easily variable in quantity (Atkinson 1985a: 8).

The third factor said to necessitate greater flexibility is technological change. As is the case for economic factors, Atkinson's account is brief and descriptive, but he argues that technological change has two dimensions. Firstly, technology is changing more quickly than ever before (1987: 88). This is said to necessitate the creation of a workforce which is able to adapt to the demands of new technologies as they emerge (Atkinson, 1985a: 3). Such adaptability allows enterprises to obtain maximum advantage from advances in technology. Secondly, technology is said increasingly to be characterised by computer controlled production systems. While not always the case, in some instances the new technologies have led to a blurring of the distinction between conception and execution of tasks. In such cases, workers need to be more highly skilled and sophisticated since they are required to perform a wider range of more complex tasks than has been typical (Atkinson, 1985a: 8). Therefore, the general effect of technological change has been to increase the need for a workforce which can be redeployed to new and/or more complex jobs as necessary.

The net effect of this combination of economic and technological pressures is said to be a situation in which:

Employers are increasingly looking for a workforce which can respond quickly, easily and cheaply to changes...; such a workforce will be able to contract as readily as it expands to meet market requirements; such a workforce must not result in increased unit labour costs...; finally it must be capable of deployment over time to meet the needs of the job exactly through recourse to a range of working time options (Atkinson 1985a: 9).

The obvious question to be considered next is how employers have attempted to generate such labour flexibility in response to these environmental changes.

Atkinson claims to have observed moves to greater flexibility in his examination of a number of British firms during the 1980s (Atkinson 1985a: 3), and he argues that the fundamental features can best be captured by his model of the "Flexible Firm" (1985a: 15). The "Flexible Firm" model can be understood both in terms of the labour market strategies employed, and the specific forms of flexibility which result. In this model, workers are divided into two groups, which are defined chiefly in terms of their respective labour market positions. The firm is based on a "core" of workers who have career security, and a larger "periphery" of less secure workers. Thus, the mechanism which facilitates flexibility is the labour market, or more precisely dual labour markets, one internal to the firm and one external.

The workers in the core are full-time career employees who possess skills and experience specific to their firm and which management cannot "buy in" from outside (Atkinson, 1985a: 15-17). Workers in the core provide the firm with a form of flexibility which Atkinson refers to as "functional flexibility". This entails strategies which seek to ensure "that employees can be redeployed quickly and smoothly between activities and tasks" (Atkinson, 1984: 28), and includes workers being sufficiently broadly skilled to move between tasks, and the definition of given jobs being sufficiently broad that they encompass any tasks which management may require workers to undertake (The specific forms which these strategies may take will be discussed in more detail when a typology of forms of flexibility is constructed in Chapter Three). Functional flexibility is said to maximise the range of tasks undertaken, and the output, by a given number of workers, and to allow firms to quickly realise the potential productivity gains of new technology. Thus, a small group of workers is able to perform a large range of tasks as necessary, and to be redeployed as necessary by management to meet the needs of changing conditions.

Because skilled, adaptable employees are valuable to the firm, managements have an interest in "insulating" them from the wider labour market and thus seek to create a labour market internal to the firm. Employment security is won in return for workers' acceptance of management's right to shift them between tasks as necessary. As well, Atkinson argues that firms adopt pay mechanisms which encourage functional flexibility among core workers (1984: 28), and which are more flexible than traditional pay systems. Examples of this are the replacement of rate-for-the-job systems with assessment-based systems, which encourage workers to undertake work as necessary rather than as defined by a job description. Similarly, payment for skills, rather than for a particular job, would be likely to encourage the ability to perform a range of tasks. Therefore, core workers are largely insulated from market fluctuations, in terms of security and pay, with only their tasks and responsibilities changing in response to such fluctuations.

The periphery is defined as that part of the firm whose workers are exposed to the external labour market. In contrast to core workers, the employment status of those in the periphery is insecure and subject to market fluctuations. These workers provide the firm with what Atkinson labels "numerical flexibility". Put simply, numerical flexibility involves a situation whereby:

headcount can be quickly and easily increased or decreased in line with even short term changes in the level of demand for labour...The end result would be that at any time the number employed/working

exactly matched the number needed...As the market grows, the periphery expands to take up the slack; as growth slows, the periphery contracts (Atkinson 1984: 28; 1985a: 15).

Thus, the workers in the peripheral group operate in a labour market external to the firm. This allows management to vary labour input in response to market fluctuations and limits employment costs as well as "minimising commitment to the worker, job security and career development" (Atkinson 1985a: 17) all of which, from this perspective would constitute labour costs. As well as adjusting the number of workers employed this may entail variations to the hours worked (Atkinson 1987: 89-90). Numerical flexibility aims at ensuring that only that labour which is needed at a given time is paid for. By employing numerical flexibility strategies firms are said to be able to adapt to market fluctuations quickly and cheaply.

In describing the periphery, Atkinson identifies three sub-groups. The "first peripheral group" (1985a: 17) consists of full-time employees in routine occupations, performing deskilled jobs which are not specific to the organisation. The lack of career prospects and systematisation of job content around a narrow range of tasks associated with such jobs, as well as a tendency to fill such jobs with women, are said to encourage a relatively high level of labour turnover (Atkinson 1984: 29; 1985a: 17). In conjunction with the fact that such jobs are relatively easy to fill from outside the organisation with a minimum of training, this facilitates easy and rapid numerical adjustment.

The "second peripheral group" (Atkinson 1985a: 17) also consists of workers directly employed by the organisation, but not on a permanent or full-time basis. Atkinson argues that part-time work, job-sharing, short term contracts and the use of government-subsidised trainees all represent means by which employers can hire workers to meet the needs of the organisation, without incurring costs if circumstances should change.

The third sub-category involves "distancing", "outsourcing" or "externalisation", through the use of sub-contractors, self-employed "jobbers" and temporary help agencies (Atkinson 1984: 29; 1985a: 17). In essence, this represents the replacement of employment of labour with the purchase of a service from another organisation or individual. It allows the organisation to utilise exactly the amount of a particular service needed at a given time and, in the case of casuals and contract workers, removes non-wage labour costs such as holiday and sick-pay and superannuation (CAITS 1986: 31-2).

An additional feature of the periphery is that a quite different form of pay flexibility than that which applies to the core is utilised. Flexible firms are said to pursue strategies aimed at ensuring that pay can be varied to reflect the state of supply and demand in the external labour market. That is, managements seek to hire labour as cheaply as the market will allow them to (Atkinson 1984: 28). Atkinson suggests that what is significant is a push to increase differentials between groups of workers, rather than an across-the-board effort to reduce wages (1984: 28). Insecure and unskilled peripheral workers seem unlikely to be in a position to demand high wages. This form of pay flexibility, by permitting "market forces to influence the outcome more directly" (Atkinson 1987: 89), is said to keep wages paid to the minimum necessary.

Atkinson argues that in combination the facilitation of the three forms of flexibility (functional, numerical and pay), realised by the division of workers into a core and a periphery, allows firms to meet changing economic and technological circumstances, with the prime benefit said to be "optimal cost-effectiveness in the current and anticipated deployment of...workforces" (Atkinson 1987: 88). This allows employers to enhance productivity, minimise labour costs and thus maximise profit, by adapting to environmental change. This in turn is said to stimulate economic growth (Atkinson 1987: 89). The more firms in a given national economy which are able to successfully pursue flexibility, the healthier will be that economy.

At this point it is possible to identify the key elements of the neo-managerialist definition of flexibility. Firstly, Atkinson conceptualises it as an attempt by management to make workers adapt to new economic and technological circumstances, driven by the need to maintain the profitability of firms. Atkinson fails to speculate about the underlying causes of the economic crisis which is said to necessitate greater flexibility. Rather, he treats it as a given circumstance to which a pragmatic response is required. Since Atkinson's pragmatic response involves management seeking adaptations on the part of labour, it appears that he implicitly assumes that it is legitimate, regardless of causes, for management to place the onus on labour in providing a solution to problems experienced by capital. If this is the case, an apparently pragmatic managerial response to crisis can be seen as having an important ideological component. This characteristic of Atkinson's conception suggests the appropriateness of the label "neo-managerialism". Secondly, in his concern with the division of workers into a core and a periphery Atkinson clearly emphasises labour market flexibility, or what Pollert terms "employment" flexibility (1988b: 44). That is, his concern is largely with flexibility in "the various mechanisms, institutions and processes involved in the allocation and pricing of jobs" (Thompson 1983: xv). Specifically, this encapsulates three forms of flexibility: functional, numerical and pay flexibility. Finally, Atkinson conceptualises his version or model of flexibility as being an objective description of concrete practices evident in industry. He contends that the key elements of flexibility in the context of production are captured by his model.

Numerous authors have expressed considerable scepticism as to the validity of Atkinson's model of flexibility as a description of concrete developments in industry (Blyton and Morris 1991a: 7-9). Perhaps the most detailed critique of the model's grasp of reality is provided by Pollert in 'The Flexible Firm: Fixation or Fact?' (1988a). She argues that Atkinson based his model on quite selective case studies of private sector firms, in particular industry sectors, which were chosen precisely because they were atypical, and that the model constitutes a "sweeping generalisation from very limited evidence" (1988a: 299). Wood queries whether neo-managerialist strategies are widespread; whether in practice individual workplaces are characterised by the pursuit of all the strategies which characterise the model; whether the division of workers into core and periphery is indeed the main approach taken to flexibility; and whether the model has general applicability across industry (1989b: 4-9). Similarly, Thompson and McHugh argue that "the empirical claims [made about the model] need to be scaled down" (1990: 215). Essentially, these doubts can be characterised as being about whether the model is a good description of reality in industry as a whole, or even in particular parts of industry. That is, to what extent does industry correspond to the description provided by the model? Therefore, the first problem to be addressed in this paper is whether Atkinson's "flexible firm" model grasps the reality of arrangements in Australian workplaces.

The remainder of this discussion of neo-managerialism will concern the possible outcomes for labour of the strategies discussed by Atkinson. The first area to be discussed concerns the benefits said to be associated with functional flexibility. Atkinson's account of the nature of the "core" suggests that functionally flexible core workers will enjoy varied, skilled and relatively rewarding jobs, with firms investing resources in providing workers with a wide range of skills to maximise their adaptability. This claim is commonly advanced in support of increasing flexibility in industry (see for example, Minister for Industrial Relations 1988). The thrust of the argument is that functional flexibility may not be compatible with the deskilling and lack of autonomy characteristic of "Taylorist" work organisation, since the firm is dependent to a large extent on the loyalty and initiative of core workers.

The extent to which functional flexibility might provide benefits to workers is one of the most contentious issues associated with the flexibility debate, and it will be pursued further when post-Fordist and neo-Fordist theories are discussed. Nonetheless, some preliminary doubts can be raised. Atkinson himself makes only limited claims about the benefits to workers of functional flexibility and, as already noted, his prime concern is with the role of functional flexibility in improving economic performance. He characterises the acceptance of functional flexibility as, to an extent, a "cost" to workers (1985a: 15), since it involves the prerogative of management to require core staff to do whatever tasks are necessary. While this may involve a range of skilled tasks, there is no logical necessity that this will be the case. It seems plausible to suppose that this might sometimes involve menial, routine and unrewarding tasks (Wood 1989b: 19). These doubts about the benefits of functional flexibility are sufficiently plausible to suggest that this issue requires further investigation, and this suggests that a second problem worthy of attention is the need to clarify the extent to which functional flexibility is associated with enhanced skill and autonomy for workers.

This leads to a further problematic aspect of Atkinson's account of flexibility. Even if it is the case that core workers enjoy favourable conditions, in the "flexible firm" they represent only part of the workforce, and probably increasingly a minority (Atkinson 1984: 31). Atkinson quite clearly recognises that outcomes are likely to accrue differentially between core and peripheral workers when he argues that:

The clear implication for employees is that one man's [sic] pay, security and career opportunities will increasingly be secured at the expense of the employment conditions of others, often women, more of whom will find themselves permanently relegated in dead end, insecure and low paid jobs (1985a: 25).

Those in the core would enjoy career prospects, job security and performance related pay systems, while in the periphery workers would suffer job insecurity and pay levels driven downwards by competition in the labour market (Atkinson 1984: 31). It has been argued that in practice peripheral work tends to be characterised by exploitation and a concentration at the lower levels of a limited range of occupations, leading to "ghettoisation" of peripheral workers (Lever-Tracy 1988: 228). Atkinson himself refers to "pernicious employment practices such as the casualisation of part of the workforce" (Atkinson and Gregory 1986: 13).

The likely disadvantage suffered by peripheral workers, and the role that this would have in reinforcing broader patterns of social inequality, has been perhaps the most

common criticism levelled at the neo-managerialist version of flexibility. It has been argued that not only do peripheral jobs have a number of undesirable characteristics, but that they are overwhelmingly filled by women and young people, rather than adult males. Those who have sought, or been driven to, part-time and casual work have tended to include women with children, the unemployed and those suffering ill-health (Lever-Tracy 1988: 228). In particular, attention has been paid to the relationship between gender and flexibility. Walby (1989) provides a useful discussion of this issue. She argues that:

The flexibility strategy...is one which provides employment opportunities to women, albeit under worse conditions of service....[it] fits the desire of women for paid work which is compatible with their existing domestic responsibilities, of employers for cheap flexible labour, and of existing male workers to retain the best jobs for themselves (Walby 1989: 137-8).

Walby contends that while there is a clear tendency for women to be found in the periphery more often than men, it is a mistake to suppose that gender segmentation is simply an unfortunate side effect of the needs of employers for greater flexibility. Rather, flexibility as conceived by Atkinson reflects existing patterns of gender segmentation and "a continuing dynamic in the inter-relationship of patriarchal and capitalist structures" (Walby 1989: 138). That is, the way in which flexibility has been implemented reflects patterns of gender segmentation.

According to this line of criticism, the inequalities associated with this version of flexibility are drawn along the lines which divide wider society, and thus reemphasise the vulnerability of disadvantaged groups (Harvey 1989: 152). Therefore, the third problem which appears worthy of attention in the course of this research is whether it is indeed the case that peripheral work is associated with a range of poor working conditions, that the division between the core and the periphery reflects wider social cleavages (notably on the basis of gender), and thus that the strategies described by Atkinson will have the effect of reinforcing or exacerbating existing patterns of social inequality.

Post-Fordism: The Labour Process, Flexibility and the Empowerment of Labour

The post-Fordist literature is more diverse, broader in its scope and more theoretically developed than neo-managerialism, but by no means less problematic. Before providing an overview of the problems raised by the post-Fordist account of flexibility, it is necessary to specify precisely what is meant by post-Fordism for the purposes of this discussion.

This task is necessary in view of the diversity of work which has been labelled "post-Fordist" and the lack of agreement in the literature as to what precisely the term means. It has been argued that post-Fordism is too vague a term to be analytically useful, and that in employing this theoretical category many authors have conflated a number of theoretical approaches which have too little in common to be treated as a single entity (Hirst and Zeitlin 1991). There has also allegedly been a tendency to treat post-Fordism as a self-evident and self-explanatory term, rather than to specify precisely what it involves. Hirst and Zeitlin suggest that these two problems have clouded debate by blurring important distinctions between

different authors and schools, whose work varies in terms of assumptions, policy prescriptions and theoretical robustness.

This warning deserves to be taken seriously and borne in mind if one is to employ the category, but it could surely be applied to most cases where a number of authors are grouped together and treated as a single school. While there is by no means total uniformity within what will be referred to as post-Fordist theory, it clearly exists as a body of literature which is united by common core elements and which can justifiably be treated as a single theoretical school (Wood 1989b: 3). Nonetheless, if the problems identified by Hirst and Zeitlin are to be avoided, it is necessary to make clear what is meant by post-Fordist theory for the purposes of this discussion. The body of work which will be labelled post-Fordist has four key distinguishing features.

Firstly, post-Fordist theory proposes a break or rupture between a previously dominant configuration of capitalist production and consumption, variously labelled as "Fordism" (Harvey, 1989; Lipietz, 1987; Mathews, 1989a, 1989b; Wood, 1989b), "mass production" (Piore and Sabel, 1984; Williams et al, 1987) or "organised capitalism" (Lash and Urry, 1987; Offe, 1985), and an emergent configuration referred to as "post-Fordism" (Harvey, 1989; Lipietz, 1987; Mathews, 1989a, 1989b; Williams et al. 1987; Wood, 1989b), "disorganised capitalism" (Lash and Urry, 1987), "flexible specialisation" (Piore and Sabel, 1984) or "flexible accumulation" (Harvey 1989:124). For convenience, from now on the terms "Fordism" and "post-Fordism" will be used.

Authors differ on how all-encompassing and how coherent such configurations are. For example, some authors have presented Fordism and post-Fordism as two "regimes of accumulation" each of which has distinctive social, economic, political, cultural and institutional features which are integrated to form a coherent entity (Boyer 1979: 99; Lipietz 1986: 19; Harvey 1989: 121). Other authors limit their concern to the sphere of industrial production, and to shifts between two "technological paradigms, ideal typical models or visions of industrial efficiency" (Hirst and Zeitlin 1991: 2).

It must be made absolutely clear that, in this paper, discussion will be limited to those elements of Fordism and post-Fordism directly associated with the organisation of production at the level of the enterprise or workplace. In particular, consideration of changes to the role of government, patterns of class formation, the basis of democratic politics and cultural forms, which are integral to broader accounts of Fordism and post-Fordism are omitted from consideration here. In limiting the discussion to those issues concerning flexibility in production and its consequences for labour, only a very partial account of post-Fordist theory is provided. For details of the range of issues dealt with by the broader conceptions of post-Fordism, see Figure 2.1. For comprehensive discussions of the wide range of issues raised by post-Fordist theory, see: Lash and Urry (1987) and Harvey (1989).

The second feature of post-Fordist theory is that it has to an extent grown out of the tradition referred to as "labour process theory". More importantly, it represents a major reformulation of that theory, which fundamentally challenges the main insights provided by previous accounts (For discussions of orthodox labour process theory, see Littler, 1982; Wood, 1982b. For discussion of more recent theoretical developments, see Knights and Willmott, 1990).

FIGURE 2.1: KEY FEATURES OF FORDISM AND POST-FORDISM

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Sources: Harvey 1989; Lash and Urry 1987; Mathews 1989a, 1989b; Piore and Sabel 1984.

The central themes of labour process theory have been deskilling and strategies of management control (Knights and Willmott 1990: 1). "Orthodox labour process theory" argues that the continued accumulation of capital depends upon management's assertion of direct control over workers, achieved via the separation of conception and execution of tasks and the appropriation of workers skills according to the principles of "Taylorism" or "scientific management" (Wood 1989b: 3). This direct control is necessary, it is argued, because work is geared to the creation of profits rather than the satisfaction of human needs. This leads to a fundamental conflict between the interests of workers and capitalists, and the need for capitalists to exert control, since the workers cannot be expected to work in the best interests of employers in a context of antagonistic relations.

The result has been "a general and progressive deskilling of jobs in the twentieth century...[and]...a long-term trend for jobs to be increasingly devoid of intrinsic content, routinised and mechanised" (Wood 1982b: 11). Post-Fordist theory represents a radical departure in suggesting that the continued viability of capitalist accumulation may be compatible with, or even dependent upon, a reversal of this trend, and a fundamental transformation of work as skills and control are increasingly returned to workers. Thus, in post-Fordist theory, moves to flexibility in production promise the reversal of trends which have decisively shaped the nature of work under capitalism.

The third feature of post-Fordist theory is that it accords micro-electronic technologies a central role in triggering moves to flexible forms of production, and in rendering Taylorism obsolete (see for example: Mathews, 1989a; Piore and Sabel, 1984; and Streeck, 1987). The emergence of such technologies is presented as a necessary, although not sufficient, condition for a shift from Fordism to post-Fordism.

The fourth distinguishing feature of the theory is its stress on the contingent nature of any change, and the importance of strategic choice and politics in determining whether the technologies are used to reverse Taylorism and move capitalism towards post-Fordism. Post-Fordist theory stresses agency, and explicitly rejects notions of determinism, and especially technological determinism (Mathews 1989a: 2-3). Its adherents argue that post-Fordist forms of production only emerge if those who favour them are able to mobilise sufficient support among the key groups within production.

The discussion will now turn to consideration of the alleged move from Fordism to post-Fordism. Fordism is so named because the principles on which it is based are said to have been exemplified by the vision and practices of American industrialist Henry Ford (Williams. et al. 1987, 1992). The organising principle of Fordist mass production is "Taylorism" or "scientific management". Briefly, this involved breaking down each work process into component motions and reorganising fragmented work tasks aimed at accelerating the completion of each production cycle and reducing time wasted by movement of components or breaks taken by workers (Braverman, 1974). As already noted in the discussion of labour process theory, the system was characterised by a separation of conception and execution of tasks, so that broadly speaking each individual production worker performed a limited range of repetitive tasks requiring only minor manual skills. These principles were applied to semi-automatic assembly-line production which became the characteristic labour process under Fordism, and which was established in the United States in the 1920s (Aglietta 1979: 117; Clawson, 1980). The Fordist labour

process is characterised by high levels of management control, a lack of worker input to decisions and repetitive and unrewarding work (Braverman, 1974).

This system, in which skills were expropriated from workers, systematised by engineers and then incorporated into mechanical production systems led both to a rapid rise in productivity and an increase in the ratio of fixed (plant) to variable (labour) capital (Lipietz 1987: 34). Mass production offered higher profits, higher wages, lower prices and new products, but at the price of large investment in expensive, specialised equipment suited to the high-volume manufacture of a particular item. Should the market for that item decrease or disappear the resources could not easily be redeployed. This rigidity meant that profitability depended upon markets large enough to absorb a huge output of standardised commodities, and stable enough to keep productive resources continuously deployed (Piore and Sabel 1984: 49). Thus, there was the necessity for mechanisms to ensure consumption.

Fordism articulated mass production based on Taylorism with mass consumption to provide markets for commodities, via a complex series of political and financial institutions. Most notably, this was facilitated by state intervention based on the principles of Keynesian economics (Lash and Urry 1987: 3; Lipietz 1987: 19; Harvey 1989: 129), and by the emergence of corporations which were able to provide some market stability by strategies including: the retention of the stable base level of demand by a large corporation, with the fluctuating segment left to small firms; storage of stock to be released when demand was sufficient; and, creation of markets for cheap, reliable standardised products (Piore and Sabel 1984: 55-63).

Harvey argues that, since the late 1960s or early 1970s, it has become increasingly difficult to control markets, while the rigidity of Fordism has also made it virtually impossible for producers to adapt to them, in a situation of increasing competition (1989: 122). A range of factors is put forward to explain these difficulties, but those most relevant to this discussion concern alleged changes in markets, and political conflict within production.

In the international sphere, traditional mass producers have been subject to increasing competition for markets. The success of Fordist production in the United States made it attractive to Japan and to Western European countries following the completion of post-war reconstruction in the 1960s and thereafter to newly industrialised countries (NICs) including Hong Kong, South Korea, Taiwan and Singapore (Mathews 1989a: 29; Harvey 1989: 140). Producers in advanced capitalist countries have increasingly found it difficult to compete with the NICs which have been able to mass produce standardised commodities more cheaply (Rubery, Tarling and Wilkinson 1987: 133). Mathews claims that on an international level the 1970s featured "trade wars" as advanced countries competed with one another and with NICs for markets (1989a: 29). He argues that this problem is directly attributable to the standardised nature of Fordist mass production, which made it easy for NICs to imitate the production strategies of advanced countries, and to its need for ever expanding mass markets.

At the national level, it is argued that there have been three crucial and related developments with which Fordist production cannot deal. First, markets for mass products in advanced capitalist countries are said to have become "saturated" (Piore and Sabel 1984: 184). Mathews argues that:

Despite the frantic efforts of mass producers of consumer goods, who have resorted to such methods as aggressive marketing, advertising, building in 'obsolescence', and creating or stimulating new desires, there are only so many cars, TV sets, washing machines or radios that people can absorb (1989: 30).

This inability to expand markets domestically led producers to seek markets overseas which, as noted, brought advanced nations into competition with each other and the NICs.

Secondly, it is argued that demand for mass products in advanced countries has been replaced by demand for differentiated products in recent years. This is attributed by Lash and Urry (1987: 199) to the growth of the "service class" which is said to have imposed its "post modern" sensibilities on the general population. This has entailed a rejection of mass products and demand for individually distinct and often naturalistic products.

Thirdly, it is argued that producers face an unprecedented degree of economic uncertainty. This derives from the need for continuous rapid adjustment to a market environment which is said to have become permanently more turbulent than in the past (Streeck 1987: 285).

These changes to markets are seen as having taken place in an international economic system which since the late 1960s has been in a generalised state of crisis (Piore and Sabel 1984: 165). In addition to the oil price shocks identified above by Atkinson, other authors cite the 1970s collapse of the Bretton Woods system of fixed exchange rates, upon which much of the post-war boom was founded, as contributing to crisis (Piore and Sabel 1984: 107-111). The 1970s and early 1980s are said to have been characterised by "stagflation", high interest rates, debt crises and world wide recession (Piore and Sabel 1984:180). Thus, at a time of heightened international competition and decline of domestic markets for mass products, the low rates of growth associated with economic crisis have made it extremely difficult to expand existing markets or develop new ones (Mathews 1989a: 29).

Post-Fordist theory suggests that at the same time as economic pressures for change, political problems have emerged within production, which place limits on responses by producers. Mathews (1989b: xii) argues that since mass production is inflexible the only way to increase productivity has been by an intensification of Taylorism in the labour process. That is, the division of labour is made finer and deskilling and management control are increased. It is maintained that this is effective up to a certain point, but that eventually workers become so dissatisfied that their resistance and disruption of production outweighs the effectiveness of the intensification strategy (Clegg 1990: 179). Fordism is said to have reached this limit and to be in need of replacement by an alternative approach which increases productivity without the accompanying unrest.

Concurrent with the apparent inability of Fordism to deal with economic and political problems, there have been advances in technology, which are said to have the potential to enhance flexibility in production, in ways which may overcome the problems which render Fordism unsustainable. The distinguishing feature of such technologies is their computerisation. Mathews lists as examples: Computer-Aided Design (CAD); Computer-Aided Manufacture (CAM); Computer-Aided Planning (CAP); an integration of the three into Computer Integrated Manufacture (CIM);

Electronic Data Processing (EDP); Electronic Funds Transfer (EFT); and Electronic Data Interchange (EDI) (1989a: 43-78). He argues that such technologies have the potential to dramatically change the organisation of production across a range of industries.

Put simply, the argument is that the rigidity of large scale, single purpose equipment will be replaced by flexible forms of production based on multi-use, programmable equipment. As markets grow or decline, producers will be able quickly to change what they produce, in response to market signals. The key to success is said to be a return to the principles of craft production, which involves the use of flexible tools to convert materials into an increasingly wide range of products using the accumulated skill and experience of the craftsperson (Piore and Sabel 1984). Economies of scale can be replaced as the determinant of economic success by economies of scope (Streeck 1987: 285).

The flexible computerised technologies are said to be able to overcome the key economic problems identified. These are the saturation of markets for standardised products, the corresponding increase in demand for differentiated products and a general volatility in markets. Because computerised machinery can be reprogrammed to new specifications as necessary, a wide range of products can be made by small workplaces, in large or small quantities, and the quality and type of product can be varied quickly. This allows products to be changed as necessary to capture markets as they emerge and then move on as they decline. This flexibility in terms of output has been characterised as "product innovation" (Badham and Mathews 1989: 208). In addition, the linkage of production sites computerisation could be expected to lead to savings being made on transport, storage and transfer times. This, in conjunction with the fact that economies of scale are now less important, since the new technologies allow less costly re-tooling of production, leads to a decline in the number of large plants and a corresponding increase in the number of small plants. Thus, the flexibility of the new technologies is said to offer the ability to meet changing market conditions, as well as reducing the costs associated with large-scale production.

Further, solution of the economic problems depends on changes which contribute to the resolution of political problems at the point of production through a fundamental transformation of the nature of work. It is the series of claims concerning the transformation of work which is of primary interest in this paper. Post-Fordist theory suggests that for the new technologies to be maximally flexible, efficient and productive, there will have to be changes in management practices, skill patterns and work organisation, which represent a fundamental break with the Fordist organisation of production and which offer increased autonomy and control for workers.

Mathews argues that a new post-Fordist management literature is beginning to emerge, largely inspired by German, Scandinavian and Japanese experience, especially the management techniques pioneered by the Toyota company (1989a: 79). He cites the examples of Just In Time (JIT), and Total Quality Control (TQC) as departures from Fordist management techniques, and of an awareness that "management, stripped of its ideological overtones, consists simply in providing for efficient allocation of material and people to tasks" (1989a: 82). These strategies are said to depend for their success on a skilled, flexible and motivated workforce which has some input to enterprise management. Thus, there is a posited shift away

from directive hierarchical forms of management to systems which involve workers in decisions about the organisation of production.

Since flexibility is an essential component of post-Fordist production, it is necessary that workers have the skills to reprogram computerised equipment to meet changing circumstances. This is said to require a reversal of Taylorist strategies of deskilling. Hence the return to the principles of craft production mentioned above. If workers are to be innovative in developing new products and contributing to new production strategies, it is essential that, as well as a wide range of skills, they have an understanding of the needs of the enterprise and the nature of its activities, and a sense of participation in decision making. This then suggests the possibility of a reversal of Taylorist strategies of control, and an emphasis on co-operative approaches to enterprise or workplace management.

Just as new skill formation and decision making strategies will be required to obtain maximum flexibility and productivity, new principles of work organisation will have to be applied. The more specialised equipment is, the easier it is for management to apply Taylorist principles of rigid rules and narrowly defined jobs (Piore and Sabel, 1984), but with computerised programmable equipment the Taylorist separation of conception and execution has become "artificial" (Mathews 1989a: 107). The difference between the new technologies and Fordist technologies is that while the latter involved the worker largely as an appendage, the former can return control to the operator. As Piore and Sabel put it:

The computer is thus a machine that meets Marx's definition of an artisan's tool: it is an instrument that responds to and extends the productive capacities of the user...the advent of the computer restores human control over the productive process; machinery is again subordinated to the operator (1984: 261).

The proponents of post-Fordism argue that there will be an increase in worker autonomy both in the design of jobs and their performance (Bramble, 1988).

It is now possible to identify the key elements of the post-Fordist definition of flexibility. Firstly, as in neo-managerialist theory, flexibility is conceptualised as a necessary response to changing circumstances, which is said to have the potential to allow enterprises to remain competitive. Secondly, and in contrast to neo-managerialist theory, the implementation of post-Fordist flexibility is said necessarily to involve co-operation between workers and management, rather than being imposed by the latter. Thirdly, post-Fordist theory overwhelmingly stresses labour *process* flexibility, or "work" flexibility, in contrast to the neo-managerialist stress on labour *market* or "employment" flexibility (Pollert: 1988b: 44). That is, the theory is chiefly concerned with flexibility in products, technology, management techniques and work organisation, as an alternative to the rigidity of "Taylorist" forms of the organisation of production.

This raises the first research problem concerning the post-Fordist model of flexibility. As was the case for neo-managerialist theory, this problem involves making an assessment of the robustness of the post-Fordist account of what flexibility means in practice. However, there are alleged problems associated with assessing post-Fordist theory, which need to be addressed briefly.

Firstly, it has been argued that it is unclear how a test of the validity of the post-Fordist vision could be devised. Hirst and Zeitlin argue strongly against the possibility of any sort of empirical test. They argue that:

It is an illusion to assume that each of them [the theories grouped together as post-Fordism] can be tested by reference to some common set of changes occurring 'out there' in the real world...We cannot construct a theory neutral domain of evidence which will suffice to adjudicate between the claims...(1991: 23).

Their argument appears to be that it is improper to attempt to test a theory or theories except with reference to the criteria which the particular theory proposes as being a valid test.

If this is a general assertion that any attempt to test theoretical claims by means of empirical analysis is invalid, then it is clear that the whole project which this paper describes constitutes a denial of the validity of this methodological critique. If this critique could be sustained and if indeed theories could only be tested with reference to their own criteria of validity, then a large part of the research effort of contemporary social science would be rendered invalid. It is beyond the scope of this paper to address the methodological debates involved. However, there are many arguments available in the methodological literature which acknowledge the difficulties associated with crude empiricism, but which nonetheless suggest that the sort of position which Hirst and Zeitlin (1991) appear to adopt should be rejected (see for example, the defences of a "realist" approach provided by Outhwaite [1987] and Schapiro and Wendt [1992]).

If Hirst and Zeitlin's (1991) argument is that in the *particular* case of post-Fordism there are problems associated with empirical tests, then this is indeed the case. However, it is possible to provide a response to this argument. It has been argued that the unclear status of many of the claims and arguments made in post-Fordist theory make it difficult to devise conclusive tests which will enable refutation or verification (Wood 1989b: 14). Indeed this is a problematic aspect of the post-Fordist literature. The post-Fordist account of flexibility in production appears to be variously a description of reality as it now exists, a prescription for how reality ought to be, and a prediction of how reality will be at some future time (Pollert 1988b: 42-3).

The predictive element of the model clearly poses problems for empirical analysis. It is logically impossible for any empirical analysis to test whether post-Fordist theory will describe reality at some point in the future. It is possible to make reasoned judgements about the likelihood of predictions based on current knowledge, but this is quite a different thing from actually testing predictions. All that can really be tested is whether a prediction made in the past has yet come true. This is probably of limited utility, since post-Fordist theorists have never made claims that by a particular date industry would look like their vision. Therefore, to the extent that post-Fordist theory is a prediction, its validity cannot be tested by empirical means, or presumably by any other means. If addressing this issue is a logical impossibility, then the fault lies with the theory in that it has been constructed in a way which precludes testing, and there is no gain to be had by dealing with this aspect any further.

The prescriptive element of the model would also appear to be problematic. Empirical analysis cannot show the extent to which something *ought* to be the case. However, it does have the potential to be used to assess the model's claims about why the post-Fordist model ought to be adopted as a policy guide for industry. If, for example, post-Fordist theorists claim that their model should be used to guide industrial strategies because there will be positive outcomes for labour, then an assessment of the extent to which the positive outcomes are actually associated with post-Fordist forms of flexibility provides some means by which to judge the prescription. If flexibility is associated with positive outcomes, then to that extent one can argue that in its own terms post-Fordist theory is a sound prescription. In large part, this is the rationale for the empirical analysis of associations between flexibility and outcomes for labour which forms the core of the paper. This aspect of the post-Fordist account of flexibility cannot be dealt with until there has been further discussion of the claims about outcomes for labour.

The final aspect of the model to be considered at this point is its descriptive capacity, and it is clearly the case that empirical analysis has the capacity to test this aspect. The same argument as was used to explain the reasons for testing the neomanagerialist model as a description of reality apply here. To the extent that post-Fordist theorists claim that their model is an accurate description of developments in industry, then an assessment of the model ought to involve an assessment of the extent to which this claim is supported by the evidence. As is the case for neomanagerialist theory, the claim that reality is captured by post-Fordist theory has been vigorously contested in the literature. While the concern of the paper is not with the arguments about why flexibility is said to have emerged, it should be noted that a number of authors have challenged the account of environmental change as a catalyst for the emergence of flexibility (see for example: Bramble and Fieldes 1992: 568-9; Wood 1989b: 15).

The main criticism of the descriptive power of the model rests on the argument that it was constructed using extremely selective evidence, and that it therefore lacks general applicability (see for example, Gahan, 1991). It has been claimed that the examples of supposedly post-Fordist firms came from a narrow range of firms, almost exclusively in manufacturing. The evidence for the widespread adoption of post-Fordist forms of flexibility is consequently difficult to find (Williams et al., 1987; Pollert, 1988b). In the British context, Hirst and Zeitlin question:

the extent to which British firms have, indeed, adopted new forms of production technique and manufacturing organisation. The evidence for such adoption is scant. British firms appear to be reproducing many of their worst faults of the post-war decades....How then can Britain's economy be characterised as post-Fordist? (1991: 10).

It has also been argued that the selectivity of the evidence has masked the fact that flexibility has always been present in some parts of industry. By constructing industry as a whole as having been characterised by Fordist production in the past, and as now undergoing a general shift to post-Fordism, the theory overly simplifies the complexity and mixed nature of practices within production. Further, it has been suggested that even in areas which have been held up as archetypically post-Fordist, such as the small firm sector in parts of Italy, the reality differs greatly from the theoretical model allegedly derived from it (Amin, 1991).

This disagreement as to the descriptive power of the model suggests that it would be useful to subject the model to empirical scrutiny. Therefore, the first problem concerning the post-Fordist model which the paper will address concerns the extent to which it captures workplace level developments in Australian industry as a whole, or in particular parts of it.

The remainder of the discussion of post-Fordist theory concerns problematic aspects of the posited associations between flexibility and outcomes for labour. The most strenuously debated aspect of the post-Fordist model of flexibility concerns the argument that there is an association between labour process flexibility and a reversal of trends of intensified management control and worker deskilling which are said to have characterised capitalist production for most of this century. The discussion which follows will deal in turn with debates about the roles of technology, management techniques and work organisation in contributing to enhanced autonomy and skills for workers.

The main relevant criticism of the conceptualisation of new technologies as facilitators of new forms of the organisation of production has been that post-Fordist theory too readily assumes that craft forms of production, which stress skill and autonomy, will be pursued in cases where the new technologies are introduced. That is, in spite of making claims to the contrary, post-Fordist theorists are said to be guilty of technological determinism (Bramble and Fieldes, 1989; Campbell, 1990; Gillespie and Probert, 1990; Marden, 1989). A feature of post-Fordist theory is the emphasis placed on contingency and agency. Indeed Piore and Sabel (1984), Mathews (1989a, 1989b), and Hirst and Zeitlin (1991) adopt an approach which gives a central role to political processes in determining outcomes. They reject the argument that the technological base determines the social structure which grows around it according to some logic of technological rationality (Mathews 1989a: 2). Thus, the availability of new technologies does not automatically lead to a specific form of production, and nor does the technology develop according to its own internal logic.

While apparently rejecting technological determinism, some post-Fordist theorists appear to adopt an equivocal position. For example, Mathews argues that it is technological innovation which triggers changes in production (1989a: 1), and that it will be necessary to adopt particular forms of organisation to "unlock the potential of the new...technologies" (1989a: 59). While there are choices to be made about whether and how to implement the new technologies, there is a said to be a narrow range of flexible forms of work which can ensure full benefits and a correspondingly narrow range of forms of organisation compatible with post-Fordist production (Piore and Sabel 1984: 265-268). Thus, while there is no necessary path of development flowing from the technologies, the choice presented is between adopting the forms of organisation dictated by the technology and prospering, or failing to do so and facing continuing economic difficulties. The notion that there is any real choice involved becomes hard to sustain.

If this criticism can be sustained, it represents a significant problem, in that it assumes that new technologies will be associated with more highly skilled and autonomous workforces. According to Wood, even if the new flexible technologies are being introduced, they may not necessarily...require a much greater degree of flexibility on the part of workers. Many of the jobs may still remain short-cycle tasks, and adding extra maintenance and inspection to semi-skilled jobs may not

substantially alter them. There is certainly no guarantee that the transformation of jobs so they are less physical will in turn involve more mental work (1989: 17).

A number of theorists have argued that not only is there no necessity about an association between new technology and a reversal of Taylorism, but that in fact there is much more likelihood that under capitalist production new technologies will be employed to deskill workers and intensify management control (Boreham, 1991a; Bramble, 1988).

The next problematic aspect of the post-Fordist account concerns the extent to which the changes to management techniques are likely to contribute to a reversal of Taylorism. Here, similar criticisms of the optimism of post-Fordist theory are made. Claims that the new management techniques represent a reversal of Taylorism (see for example: Mathews 1989a: 83-84), would appear potentially to be an example of the common assumption, identified by Wood, that new systems of management are necessarily moves away from Taylorism and towards worker control (1989: 33). A number of authors have argued that post-Fordist theory has too readily assumed the potential benefits to workers of new management techniques, and that in practice they often have the opposite effect. For example, Bramble's study of plants which were "amongst the leaders in the application of JIT and Total quality Control" (1988: 197) in the Australian metal industry, indicated that in the firms surveyed new management techniques had overwhelmingly been introduced in ways which reduced the autonomy and transferable skills of production workers (1988: 206).

Finally, the same sorts of criticisms have been levelled at the claims made by post-Fordist theorists about the outcomes of new forms of work organisation. Wood's (1989) sceptical comments about the outcomes of functional flexibility which were noted in the discussion of neo-managerialism are applicable here. On a similar note, Bramble and Fieldes cite a number of studies in different countries which indicate that practices identified with post-Fordist forms of work organisation, such as "multiskilling" and "quality circles" are quite compatible with the degradation of work (1992: 570-3).

In essence, the criticisms of each of these aspects of the post-Fordist model are the same. That is, that there is a readiness in post-Fordist theory to assume that changes to work organisation and management techniques will almost automatically involve a move away from Taylorism, because employers will realise that it is rational to adopt strategies which enhance worker skill and autonomy. Critics suggest two things about this facet of the theory. Firstly, they argue that there is no inherent logic which dictates that flexible production will lead to upskilling and autonomy. In practice, there is evidence of a range of outcomes, and no clear path down which developments move (Pollert 1988b: 61-2). Secondly, it is suggested that if there is no necessary association between flexibility and autonomy and skill, other factors must play a role in determining outcomes. The overly deterministic nature of post-Fordist theory effectively displaces concern with structures of power in the labour process and allows optimistic predictions about outcomes for labour, which ignore such structures, to be made.

It is clear that the extent to which post-Fordist forms of flexibility are likely to be associated with a reversal of Taylorist processes of the degradation of work has been a matter of some contention in the literature. The lack of resolution of this aspect of the debate suggests the utility of testing the claims of post-Fordist theory.

Thus, the second problem concerning this school which will be dealt with concerns the extent to which empowerment of labour via increased skill and autonomy is associated with labour process flexibility of the kind envisaged by post-Fordist theory.

This also raises the question of the distribution of outcomes discussed with reference to neo-managerialism. That is, even if flexible forms of production have positive outcomes, will they necessarily apply to all or even most workers? The apparent optimism of post-Fordist theorists in this regard has led Clegg to label this school "neo-romanticism" (1990: 209). However, it must be admitted that not all accounts are unreservedly optimistic. For example, Kern and Schumann (1987) concede that there will be "winners" and "losers" among workers. That is, as in neo-managerialism, it is conceded by these authors that the gains of some workers may be at the expense of losses for others. However, the notion of a separation of workers into a privileged "core" and a disadvantaged "periphery" as outlined by Atkinson is certainly not integral to this model. Further, Pollert (1988b: 68) argues that while some post-Fordist literature notes the possibility of benefits accruing unequally, on the whole it downplays this scenario. Similarly, Wood asks

are all jobs equally affected? Do they [post-Fordist forms of flexibility] definitely increase the skill levels of all jobs? Are not many of the calls for functional flexibility largely directed...at those whose jobs are already relatively skilled? ...technological developments are uneven and within many of these either new or old unskilled jobs remain which are often highly physical or routine, what some have called residual jobs (1989: 17-18).

Post-Fordist theory is also said to ignore the extent to which those excluded from benefits will tend to occupy particular class, gender and ethnic positions (Bagguley 1991: 166; Jenson 1989; Walby 1989). That is, in positing generalised benefits for workers from labour process flexibility, the post-Fordist school is accused of paying insufficient attention to structures of inequality in the labour market. Therefore, the third problem which this discussion raises is whether the alleged benefits of labour process flexibility appear to accrue equitably across the workforce.

Neo-Fordism: The Labour Process, Class and the Degradation of Work

For the purposes of this discussion, neo-Fordist theory is defined by four main features. Firstly, it has grown out of the same tradition of Marxian labour process theory as some elements of post-Fordism. It emerged from the work of the French "regulation school", notably Aglietta (1979) although Palloix (1976) is credited with developing the term (Clegg 1990: 211; Gahan 1991: 160; Wood 1989b: 21). The concept also appears in the work of Sabel, prior to his advocacy of post-Fordism (Sabel, 1982). In contrast to post-Fordist theory, however, neo-Fordist theory holds that flexibility does not entail any fundamental change to the relations between labour and capital which have characterised Fordism, and capitalism more generally. While production methods may be changing, change takes place within capitalism, and this has implications for the extent to which relations between capital and labour can change.

The central claim is that the interests of employers and employees remain antagonistic, and that it is necessary for employers to find ways to exert control

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over the labour process as a means to ensure that workers perform their work and thus generate surplus value. The ways in which the organisation of production develop are manifestations of class, which is a defining feature of capitalism (Boreham 1991a: 91). Therefore, "the 'neo-Fordists' argue that the new production methods herald not the withering away, but the accentuation of the basic principles of scientific management" (Bramble 1988: 193). The emergence of new flexible forms of production does not entail a transcendence of Fordism, but a continuation or extension, albeit in new ways.

Secondly, while neo-Fordist theory predates the other two schools, and while post-Fordists have appropriated concepts and terminology associated with the "regulation school" which developed the concept of neo-Fordism (Hampson, 1991), the latter school now exists largely as a critique of the other two theories. While the theorists labelled as neo-managerialists and post-Fordists promote their respective theories as appropriate paths for industry to follow, neo-Fordist theory is a "negative" theory. That is, it is presented as a model of actual or likely developments which are undesirable due to their negative outcomes. The neo-Fordist project represents a critique of flexibility, not a celebration.

Thirdly, neo-Fordist theory presents flexibility as being concretely manifested in practices which can be observed in industry. This may seem an obvious point, but it is a necessary one to make. This is because some of the critical literature with a Marxian perspective has suggested not only that the underlying dynamic of capitalist production has not changed, but also that the changes in concrete features of production proposed by advocates of flexibility are largely illusory (see for example: Hyman, 1991; Pollert 1988a, 1988b). There has been a tendency to label all literature which provides a "leftist" critique of flexibility as being "neo-Fordist", including material which makes this general argument. However, since its inception, neo-Fordist theory has been concerned with the emergence of new forms of production, and has sought to explicate the concrete features of new production systems (see for example Aglietta, 1979). Therefore, while neo-Fordist theory is defined by the contention that capitalist relations of production remain unchanged, it clearly concerns itself with concrete developments. Authors who argue against there having been any concrete changes in production are, to that extent, excluded from the neo-Fordist school for the purposes of this discussion.

Finally, while there are different accounts of what an emergent neo-Fordist configuration might look like, there is nonetheless broad agreement on its essential features (Wood 1989b: 20). The neo-Fordist conception of flexible production is, like the post-Fordist one, constructed in terms of computerised technology, new management techniques and new forms of work organisation. Indeed, as will become apparent, in significant ways the neo-Fordist account can be seen as constituting a different interpretation of the nature and outcomes of many of the same concrete developments embraced by post-Fordism, although there are noteworthy differences.

Like post-Fordist theory, neo-Fordist accounts start with a conceptualisation of twentieth century capitalism as Fordist. Nothing needs to be added to the account of the Fordist configuration of capitalism provided in the previous section, since this general conception of the dominant configuration is shared by post- and neo-Fordist theory. However, as is the case for post-Fordism, neo-Fordist authors differ in terms of the extent to which they conceptualise Fordism and neo-Fordism as having encapsulated a coherent "regime of accumulation". Certainly such a

conceptualisation is integral to the analysis provided by authors associated with the "regulation school", from whence neo-Fordist theory emerged (see: Aglietta, 1979; Boyer, 1990; Lipietz, 1986, 1987). Other authors have expressed at least a degree of scepticism about the extent to which changes in production can be conceptualised as part of sweeping changes which touch every aspect of life (Bramble and Fieldes, 1992). Nevertheless, there is general agreement that the emergence of neo-Fordist forms of flexible production is in large part a response to the lack of the continued viability of production organised along Fordist lines, as detailed above in the discussion of post-Fordism.

While neo-Fordism similarly entails a view of Fordism in crisis, and the notion that resolution of the crisis will involve the emergence of a new regime or a new production system (Aglietta 1979: 19-20), it involves a slight difference of emphasis from post-Fordist theory in terms of forces for change. While the latter emphasises changes in markets, neo-Fordist theory emphasises political problems at the point of production (Clegg 1990: 211; Wood 1989b: 22). These arise due to the previously discussed problem that since mass production is inflexible the only way to increase productivity has been by an intensification of Taylorism in the labour process, which eventually reaches a point where worker dissatisfaction and disruption outweigh the benefits of intensification. Because it is not possible to "squeeze" any more profit out of the labour process by existing Taylorist strategies, without causing excessive conflict between workers and management, an alternative approach has been developing. As Aglietta puts it: "The class struggles in production today bear the germ of a major new transformation in the labour process - neo-Fordism" (1979: 122). Nonetheless, the neo-Fordist account also presents flexibility as a response to the need for enhanced competitiveness in product markets, and the corresponding need to be able to produce a range of products as necessary (Wood 1989b: 21).

The solution which neo-Fordist theorists have identified involves a combination of labour market and labour process forms of flexibility, sharing features which have already been discussed with reference to the other two theories. In terms of labour market flexibility, the neo-Fordist model involves a dualised labour market consisting of a core of secure, skilled, well-paid staff, and a periphery of relatively unskilled workers (Mathews 1989b: xiii). Since the characteristics of such an arrangement were presented in the discussion of neo-managerialist theory, they will not be discussed further here.

The two fundamental features of neo-Fordism are said to be the automation of production, and the reorganisation of work (Aglietta 1979: 122; Bagguley 1991: 160; Bramble 1988: 195; Clegg 1990: 211; Wood 1989b: 20). The same manifestations of computerised technologies as discussed with reference to post-Fordist theory form the basis of the neo-Fordist approach. The fundamental difference, however, is that the emphasis is on the use of new technology to enhance integration, co-ordination and control, while simultaneously increasing the range of commodities produced (Wood 1989b: 21). This is achieved by the use of the new technologies to further automate production (Bramble 1988: 191-2). The germinal account of neo-Fordist production in the work of Aglietta is concerned with the use of computer numerically controlled (CNC) machines in manufacturing. In his account, each machine

is equipped with its own mini-computer, of the kind which the miniaturisation of integrated electronic circuits has made possible to produce. The functioning of the machine is then completely freed from the motor and sensory limits of the human operator. Precision is improved, production time sharply reduced, and above all, the time taken to prepare the machine system for different conditions of use can be reduced from several hours to a few minutes, while completely eliminating the need for skilled personnel (Aglietta 1979: 125).

Such systems are said to be able to switch between mass production and short runs as necessary (Aglietta 1979: 125), and the linkage of production units via computerisation facilitates increased centralisation of management control (Bagguley 1991: 160). More recently, however, the neo-Fordist account has been used to cover developments in a range of sectors other than manufacturing, and to encompass the use of a range of technologies to enhance management control. For example, Bramble and Fieldes cite Butler's (1988) study of the use of word processing technologies among secretarial workers as evidence of the utilisation of neo-Fordist approaches in the service industries (1992: 572).

This usage of new technologies is said to allow products to be switched as necessary, and to facilitate greater productivity. However, in view of the argument that the neo-Fordist account stresses the need for control by management, the capacity for automation to reduce worker control of the labour process via deskilling and increased surveillance is perhaps of more interest. Boreham characterises this type of control as technical control

where the control mechanism is embedded in the organisation of production based on a technology that paces and directs the labour process. Production arrangements embodied in technical control contribute a further impetus to the homogenisation process leading to a workforce dominated by unskilled and semi-skilled machine operatives. Such forms of control often find their application in secondary labour markets... (1991a: 90).

This latter claim is important, since in the neo-Fordist account the use of technologies to enhance control through inbuilt pacing, direction and monitoring of work, and associated processes of deskilling, applies predominantly to peripheral workers. In contrast, the core consists of skilled technical and managerial staff, whose role is to co-ordinate production.

The distinguishing features of neo-Fordist work organisation are, on the surface at least, similar to those characteristic of post-Fordist arrangements. Firstly, there is the presence of strategies associated with functional flexibility. Workers are required to be "polyvalent" or "multiskilled" (Bagguley 1991: 152), and work is redesigned in what Aglietta labels the "recomposition of tasks" (1979: 122) through "job enrichment" and "job rotation" which involve workers undertaking a range of tasks as part of their jobs, and moving between different parts of the production process. However, in contrast to the post-Fordist scenario, this does not imply higher skill levels or more intrinsically rewarding work. Rather, while the reversal of the division of labour involves a single worker being able to perform a range of tasks, these tend to be menial, the process of automation having stripped those jobs of any skilled content. Thus, workers' jobs are "enriched" in the sense that they are able to perform a wide range of degraded tasks, and rotation takes the form of movement between a series of such standardised, deskilled jobs.

Secondly, there are new forms of work organisation. For example, workers may be organised into "semi-autonomous work groups" which are responsible for all aspects of a given segment of the production process, and which divide up tasks between their members. However, their are very real limits to their autonomy, because the groups are "[r]igorously integrated into the overall information system of the enterprise and entirely subjected to the programming and controlling centre" (Aglietta 1979: 129). Hyman argues that there is a very big difference between genuine self-management, and the delegation of management which characterises neo-Fordist work organisation (1988). Thus, workers control themselves only within very narrow bounds set by the central managers of the production process.

It is argued that the use of semi-autonomous work groups represents a deliberate strategy by management to "co-opt" workers (Bramble 1988: 194). This serves two functions relevant to the discussion. Firstly, to some extent it removes the need for direct management control, and the apparent return of control to workers reduces the potential for industrial unrest. Secondly, by making workers responsible for a complete segment of production, it places the onus on workers to solve problems. That is, while in no way compromising managerial prerogative, it is possible for workers to "participate" in production, which enhances productivity and reduces potential conflict. Clegg sums up the features of neo-Fordist work organisation as

new techniques of control, in which management prerogatives remain unchallenged and in which work-group autonomy becomes an internalisation into the collective workers of what has hitherto been external surveillance...neo-Fordism...represents a capitalist solution to scientific management's greatest problem...how to regain, re-utilise and re-control the workers formally excluded but tacitly traded-on knowledge (1990: 211).

Finally, the new management techniques discussed in the context of post-Fordism are said to play a role in the neo-Fordist version of flexibility (Bramble, 1988), although this aspect is not as well developed in the literature as those discussed above. The argument which is made by Bramble is that the adoption of Japanese techniques such as JIT represents not the reversal, but the intensification of Taylorist management strategies. With reference to JIT, he argues that: "The elimination of buffer stocks (through the kanban system) and the need to stop the line in case of defects (jikoda) enables management to pinpoint areas of slack production much more easily than when large stocks of work-in-progress hid worker inefficiency" (1988: 194).

It is now possible to summarise the key features of neo-Fordist theory, and thus to make clear how flexibility is defined within this framework. Firstly, like the other two schools, neo-Fordist theory presents flexibility as a response to the perceived inadequacy of existing production arrangements, which has the potential to allow enterprises to remain competitive. Those managements which successfully put in place the neo-Fordist version of flexibility will be able to overcome the crisis of Fordism, at least for a time. To the extent that the neo-Fordist arguments are sound, those who pursue such a strategy will be economically successful, although given its Marxian base, it would presumably have to conceive of neo-Fordism as a "temporary fix" (Harvey 1989: 189) which would in due course cease to function due to the inherent contradictions of capitalism. Secondly, like neo-managerialist theory and unlike post-Fordist theory, the implementation of neo-Fordist flexibility is said to be imposed by management. It deals with forms of flexibility which

involve the reassertion of managerial prerogatives, and increased control over labour by capital (Bagguley 1991: 153). Thirdly, while neo-Fordist theory predominantly stresses labour *process* flexibility, or "work" flexibility, it also includes the notion of dual labour markets as described in the neo-managerialist literature. That is, while the theory is chiefly concerned with flexibility in products, technology, management techniques and work organisation, it also encompasses the division of workers into core and peripheral groups.

There is no need to reiterate the reasons for subjecting the neo-Fordist model to testing in terms of its' adequacy as a description of reality. These have been more than adequately discussed above. Therefore, the first research problem to be considered is whether the model of flexibility presented by this theory is an accurate description of key aspects of production in Australian industry.

It was argued above that neo-Fordism is in large part a critique of the other theories of flexibility. This critique takes the form of an argument that, firstly, the optimism of post-Fordism is misplaced and, secondly, that the negative features predicted by neo-managerialism are such that theory's promotion of flexibility is indefensible. Where post-Fordism represents a major break with labour process theory, neo-Fordism is a continuation of it. In spite of a number of shared features, neo-Fordism makes none of the optimistic predictions of post-Fordism in terms of a reversal of Taylorism and the empowerment of workers. Indeed, in terms of outcomes, it shares with neo-managerialism the notion of the concerns of labour being sacrificed in the interests of the continued accumulation of profit. Bagguley characterises the predictions of neo-Fordism as being, for labour, "profoundly pessimistic" (1991: 153).

The exposition of proposed outcomes will be brief for two reasons. Firstly, in terms of labour market flexibility, the characteristics and outcomes of core/periphery structures have been discussed with reference to the neo-managerialist model, and nothing further needs to be added. Secondly, with reference to labour process flexibility, as noted at the start of this sub-section, neo-Fordism is in large part a different interpretation of the same concrete features dealt with by post-Fordism. The difference in interpretation is chiefly about outcomes. Therefore, to the extent that there exists a critique of the pessimism of neo-Fordism, it is constituted by the account of outcomes discussed in the previous sub-section. Similarly, the arguments about the negative aspects of labour process flexibility have largely been covered in the context of critiques of post-Fordism. Therefore, what follows will merely summarise the claims about outcomes, to avoid unnecessary repetition.

Starting with the implications of new technology, neo-Fordism rejects technological determinism. Aglietta argues that the technical division of labour is subject to the social division of labour (1979: 112), and Kaplinsky (1984) argues that while new technologies may offer potential upgrading of work this is unlikely given existing power relations within production. Thus, the neo-Fordists accord a central role to class in determining how production is organised. Since capital must maintain profitability, and since capital is the dominant force within production, it is to be expected that the organisation of production will be determined predominantly by the needs of capital.

The result of the increased automation of production using new technologies is said to be the continued deskilling of large parts of the workforce and the lack of any genuine control over the process of production for workers. Similarly, the new

management techniques and forms of work organisation are said to intensify management control, while at best providing the illusion of genuine participation. Most obviously, all the disadvantages in terms of deskilled and degraded work, as criticised by labour process theory, would remain. To the extent that workers have control over their work, via mechanisms such as semi-autonomous work groups, this is severely circumscribed. In any case, the primary function of such mechanisms is said to be the co-opting of workers as an alternative to direct management control. In terms of outcomes of labour process flexibility, Aglietta argues that

Theoretical analysis of the labour process must thus dispel the illusions...(of) the supposedly liberating character of the new types of work organisation. Analysis of the labour process must also dispel a further illusion - that of the liberating character of technology...(and a situation in which)...burdensome work will have disappeared (1979: 112).

Therefore, the second research problem suggested by neo-Fordist theory is the converse of that suggested by post-Fordist theory. That is, to assess the proposition that labour process flexibility is not positively associated with enhanced autonomy and skills for workers, and indeed may be negatively associated.

To the extent that there are benefits from changes to production, the neo-Fordist account would suggest that they would apply only to those workers in the core, although even then the arguments made about management strategies of co-optation suggest that in most cases those benefits are likely to be more illusory than real. To the extent that the presence of core/periphery structures is evident, then it might be expected that those workers in the periphery would disproportionately suffer any negative outcomes. This suggests that a third research problem is the same as that raised in the context of neo-managerialist theory. That is, to determine whether it is the case that, where core/periphery structures exist, workers in the periphery will suffer disproportionate disadvantage, and that this will have the effect of reinforcing existing patterns of social inequality.

The discussion of the three accounts of flexibility in this chapter has demonstrated that each school conceptualises flexibility in a different way and that each posits different outcomes for workers. That is, there is a profound lack of agreement as to the meaning and implications of labour flexibility. In charting the claims and counterclaims of participants in the flexibility debate, a series of specific theoretical problems has been identified, which provides the research agenda for the remainder of the paper. In the next chapter, data from the AWIRS are analysed in an attempt to resolve the problems which have been specified above.

3. Labour Flexibility in Australian Industry

Chapter Two has demonstrated that there are major problems associated with labour flexibility which simply have not been dealt with adequately in the literature. In view of the tremendous influence of theories of flexibility on academics and policy makers in Australia, it is imperative that these problems be resolved. A number of studies of Australian industry have sought to shed light on some of these problems (see for example: Bramble, 1988; Bramble and Fieldes, 1992; Junor et al., 1993; and Burgess and McDonald, 1991). Further, there are various sources of statistical data which allow some elucidation of key aspects of flexibility (see for example: ABS 1982, 1986, 1989a, 1989b, 1993). Nonetheless, there is no body of work in existence which resolves the many theoretical and practical problems associated with labour flexibility (for a very detailed review of available Australian evidence and its inadequacies, see Harley 1994: 68-109). This represents a major gap in our knowledge of one of the most influential concepts to have emerged in recent years.

The intention of this chapter is to fill, to some extent, this gap in our knowledge and to facilitate some firmer conclusions concerning the nature and outcomes of labour flexibility. In doing so, the chapter reports the findings of a series of analyses of data generated by the Australian Workplace Industrial Relations Survey (AWIRS). It is divided into four sections. Section One provides details of the AWIRS, of the construction of quantitative indicators of flexibility, and of the statistical methods employed in analysing the data. The second and third sections present the results of the analysis. Section Two provides an assessment of the extent to which industry as a whole, or particular parts of industry, are described by any of the three models of flexibility. In Section Three the substantive problems concerning relationships between flexibility and a series of other phenomena will be discussed in light of the analysis of the AWIRS data. The final section outlines the theoretical, practical and methodological implications of the analysis presented in the chapter.

THE DATA AND THE METHOD

The Australian Workplace Industrial Relations Survey (AWIRS)

The first AWIRS survey was administered by the Australian Department of Industrial Relations (DIR), in co-operation with the Australian Bureau of Statistics

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(ABS), between October 1989 and May 1990 (A second AWIRS was being conducted at the time that this monograph went to press). A detailed account of the survey can be found in *Industrial Relations at Work: The Australian Workplace Industrial Relations Survey* (Callus et al. 1991). The chief objective of the survey was to obtain quantifiable and authoritative workplace level data to contribute to a better understanding of patterns of workplace industrial relations and assist in the development and assessment of policies (Callus et al. 1990: 2). In this aim, and the approach adopted, AWIRS was inspired to some extent by the Workplace Industrial Relations Surveys (WIRS) which have been carried out by the British government during the 1980s (see Millward and Stevens, 1986, for a discussion of the British experience).

The Australian survey had two parts, the first being a survey of 2004 workplaces with a minimum of twenty employees in all states and territories and covering all industries with the exceptions of Agriculture, Forestry, Fishing and Hunting, and Defence. The second part was a much more general telephone survey of 349 workplaces with between 5 and 19 employees. This paper only utilises the first part because the second was not detailed enough to generate the information required. The survey questionnaires which were used included approximately 450 data items. Four questionnaires were used in the survey of workplaces with 20 or more employees. The response rate from workplaces approached was 87.1% (Callus et al. 1990: 19).

For the purposes of the survey, the unit of analysis was the workplace. The definition used was that employed by the ABS: "a single physical area occupied by the establishment from which it engages in productive activity on a relatively permanent basis" (1983: 53-54). That the unit of analysis is the workplace has important implications for the findings of this chapter, which will be discussed below. The sample of workplaces was drawn from the ABS register of all establishments in Australia. It excluded workplaces in the Agriculture, Forestry, Fishing and Hunting and Defence industries, due to sampling difficulties in the former and the unique nature of industrial relations in the latter. It was stratified into metropolitan and non-metropolitan categories; by state/territory; into a number of size bands; and by industry group.

The AWIRS dataset was utilised in this paper because it is unique in being a systematic national level survey of workplace industrial relations in Australia. It represents a notable development in methodological terms, and one which makes it eminently suitable to overcome the deficiencies of previous studies. Previous approaches have tended to rely on selective case studies and limited surveys (Green and Macdonald 1991: 564). It has not been possible to aggregate existing studies to form a coherent body of knowledge, due to differences in time frames, data items and methodologies (Zappala, 1988). The result has been a lack of any systematic, quantifiable and comprehensive body of knowledge about Australian workplace industrial relations (Callus and Lansbury 1988: 365; Willis 1988: 404). The data collected by the AWIRS constitutes the first such body of knowledge, and thus represents a means to go beyond the limitations of previously available sources of information.

Specifically, the survey overcomes the shortcomings of previous studies in three ways. Firstly, by virtue of its scope, AWIRS has generated data which capture the bulk of phenomena of relevance to the research problems which inform this project. Secondly, in most instances the data items are suitable for the construction of

indicators which allow the quantification of different forms of flexibility and other phenomena. This allows considerable precision in drawing conclusions concerning flexibility. Thirdly, the survey sample has been designed to allow generation of population estimates with very small standard errors (Callus et al. 1991: 10, 220). This means that conclusions based on the AWIRS sample can be applied to the rest of Australian industry with considerable confidence. Fourthly, the data were collected relatively recently. Thus, conclusions can be regarded as indicative of contemporary developments.

These four characteristics of the data mean that statistical analysis can be employed to quantify precisely the extent of flexibility and of its relationships with other phenomena, and that findings can be regarded as indicative of those which exist in a large part of contemporary industry. These characteristics allow one to answer the research questions which inform the paper with considerably more precision and confidence than would have been possible prior to the conduct of AWIRS.

A number of limitations apply to the data and hence to any findings. While they by no means justify rejection of the AWIRS data as the central empirical base for the paper, they need to be borne in mind when assessing any conclusions drawn. Firstly, the survey was not designed specifically to collect data on flexibility. As a result, some variables do not capture relevant phenomena as precisely as they might if a survey had been designed specifically for this project. Nonetheless, the survey allows the creation of variables which capture most relevant phenomena sufficiently well to justify their inclusion. There is no superior data source available, and the costs involved in collecting alternative data on a similar scale would be prohibitive.

The second, and related, limitation concerns the nature of the variables. The form of some items in the AWIRS dataset is such that it was not possible in all cases to generate variables capturing interval level data. Some of the variables are ordinal scales, which means that although they approximate interval level data, they cannot be regarded as absolute measures. As a result, when assessments are made of the degrees of different forms of flexibility in Australian workplaces, it is only possible to compare workplaces to other workplaces in the survey and not to any absolute standard of flexibility (although whether any such absolute standard is extant, or could be constructed, is highly questionable). Thirdly, because the AWIRS survey provides a "snapshot" of workplaces in Australia at a particular time it is not possible to make any assessment of whether Australian industry is more or less flexible than it was in the past.

A fourth limitation concerning the variables is that virtually all of the relevant questions in the survey were only asked of representatives of management resulting in a clear bias towards management responses to questions. It is not possible to determine whether this has systematically biased responses in a particular direction, but this must be considered a possibility.

Fifthly, the AWIRS only collected relevant data on workplaces with twenty or more employees, and thus the findings are only applicable to such workplaces. This means that it excludes the 75 per cent of all workplaces with 5 to 19 employees (Callus et al. 1991: 18-19), and in this sense is unrepresentative. While around 77 per cent of employees work in workplaces with 20 or more employees (Callus et al. 1991: 18-19), by using this sample the survey still excludes over 20 per cent of employees. Thus, claims about working arrangements made in this study should be applied to the bulk of *employees*, but not necessarily to the majority of *workplaces*.

Finally, as noted above, the unit of analysis for the AWIRS is the workplace rather than the employee. This means that it is not possible directly to test propositions about outcomes of flexibility for individuals. For example, the data allow one to ascertain whether workplaces with high levels of functional flexibility also have high levels of worker autonomy. From this it is possible to make inferences about whether individual workers in workplaces with high levels of such flexibility are likely to enjoy autonomy. However, it is not possible to test the proposition that there is an association between individual employees being functionally flexible and also being autonomous. This is not considered to be a problem, since the paper is concerned with organisational practices rather than the characteristics of individual workers, but it should be borne in mind when considering the findings presented in the chapter.

Operationalising Flexibility

The purpose of this part of the chapter is to move from the rather general conceptualisations of flexibility employed in the previous chapter, and to construct a series of variables which allows the quantification of different forms of flexibility. The first step in operationalising the concept of flexibility is to utilise existing typologies as a means to isolate and define a range of phenomena which encompass the key components of the respective versions of flexibility presented by the three theories. Numerous such typologies can be found in the literature (see for example: Bamber, 1990; Boyer, 1987; Meulders and Wilkin, 1987; OECD 1986a; Rimmer and Zappala, 1988; Sarfati and Kobrin, 1988). It is not intended to construct a new typology which includes all the forms of flexibility covered by existing typologies. Rather, the purpose is to choose only the forms which are necessary to capture the neo-managerialist, neo-Fordist and post-Fordist models of flexible production at the level of the workplace. By clarifying in detail what sorts of practices constitute the different forms of flexibility it becomes possible to identify arrangements captured by the AWIRS which can be used to construct specific indicators of flexibility as well as of other phenomena relevant to the paper.

Discussion will commence with an examination of the three-fold typology integral to Atkinson's flexible firm model. Atkinson's three forms of flexibility (numerical, functional and pay) form the basis for most typologies of flexibility which appear in the literature. Additional categories of flexibility, necessary to deal with post- and neo-Fordism, will then be considered.

Numerical Flexibility

Numerical flexibility has been discussed in some detail in Chapter Two. The discussion indicated that the key feature of this form of flexibility is that it allows management to vary employee numbers as conditions dictate, and that it may be achieved via a "peripheral" group of workers. It is integral to both the neomanagerialist and neo-Fordist models of flexible production, and two variables were constructed from the AWIRS data as a means to capture practices representative of this form of flexibility. Full details of the construction of these variables and all others employed in this chapter are presented at Appendix A.

NUMFLEX1 (Numerical Flexibility for Management) measures the extent to which management would seek to vary staff numbers in response to changes in demand for product or services. It is based on a series of questions which ask workplace

managers what their long and short term responses to increases and decreases in demand would be, and is intended to capture the tendency to favour varying employee numbers over alternative approaches such as changing hours of work or prices of products and services.

The second variable, NUMFLEX2 (Core/Periphery), aims to capture the extent to which workers are divided into a core and a periphery within the workplace. It is therefore a specific measure of one of the key structural characteristics of workplaces which correspond to the neo-Fordist and neo-managerialist models. NUMFLEX2 is a scale which indicates relative proportions of full-time permanent, part-time permanent, full-time casual, part-time casual, contract, agency and home/out workers. The lowest value is assigned to cases where all employees in a workplace are full-time and permanent, and the highest to those where all employees are contractors, agency workers and/or homeworkers/outworkers.

Functional Flexibility

Functional flexibility entails strategies which seek to ensure "that employees can be redeployed quickly and smoothly between activities and tasks" (Atkinson 1984: 28). These strategies may take a number of forms. For example, "multi-skilled" (Wood 1989b: 5) workers, with a range of technical competencies, can switch tasks as necessary and adapt to technological change more easily. "Broadbanding" (Mathews 1989a: 130) or "job redesign" involves the reorganisation of jobs to include a wide range of tasks, so that workers are not restricted in their activities by the narrow job definitions typical of Taylorism. Similarly, the removal of demarcations between jobs would facilitate functional flexibility. Functional flexibility can also be associated with such mechanisms as "quality circles" (Mathews 1989a: 162) in which employees may have responsibility for a range of tasks associated with the planning and execution of production.

Functional flexibility is central to each of the three theories of flexibility, but each conceives of it differently. In neo-managerialist theory functional flexibility is driven by management. Positive outcomes accrue to organisations in the form of the ability to adapt quickly to changing circumstances and maintain profitability. For workers, functional flexibility is a cost (Atkinson 1985a: 15) since they are subject to redeployment. In neo-Fordist theory, the same notions of management control, division of workers into a core and a periphery, and benefits to management apply. The post-Fordist version of functional flexibility is the greatest departure from Atkinson's original category. Rather than a management prerogative to move workers between tasks and jobs, functional flexibility is conceptualised as associated with a return to craft principles of production, in which each worker is able to perform the range of tasks necessary to produce an item. Therefore, functional flexibility is conceptualised alternatively as a worker controlled or a management controlled phenomenon.

Directly measuring the degree of functional flexibility in a workplace is problematic. It is not clear how one might capture the ease with which workers move between tasks. Nor is it clear how one would decide how to classify a job as entailing a broad or narrow range of tasks. Not surprisingly, the AWIRS data does not include any items which attempt to capture such elusive manifestations of functional flexibility. It was, however, possible to construct a variable which captures the incidence of various practices which the literature identifies as being manifestations

of functional flexibility. FUNFLEX (Functional Flexibility) measures the extent of introduction of a range of flexible forms of work organisation. Specifically, it utilises a question which concerns the introduction of job redesign, semi-autonomous work groups and quality circles. It is a scale in which the introduction of all three practices gives a maximum score and the introduction of none the minimum score.

Unlike numerical flexibility which is conceptualised as a management controlled phenomenon, functional flexibility is conceived as potentially either management or worker controlled. This is accommodated by FUNFLEX, since the work practices with which it deals could be potentially management or worker controlled, and the question upon which the variable is based does not specify either.

Pay Flexibility

Pay flexibility as discussed by Atkinson (1985a; 1985b) has two dimensions. Firstly, it covers strategies aimed at ensuring that pay can be varied to reflect the state of supply and demand in the external labour market. That is, managements seek to hire labour as cheaply as the market will allow them to, which is hardly a novel concern (Atkinson 1984: 28). Secondly, Atkinson argues that firms adopt pay systems which encourage functional flexibility (1984: 28) and greater output. Examples of this are the replacement of rate-for-the-job systems with assessment-based systems, which encourage workers to undertake work as necessary rather than as defined by a job description. Similarly, payment for skills, rather than for a particular job, would be likely to encourage the ability to perform a range of tasks.

Atkinson's categories have been extended by a number of authors. Bamber (1990), Goodwin and Maconachie (1990), Meulders and Wilkin (1987) and Boyer (1987) have identified the categories of microeconomic, or internal, and macroeconomic, or external, flexibility. The former refers to the ability to vary wage levels in response to fluctuations in the performance of the firm or elements of the firm. This overlaps with Atkinson's second category, since both link wage levels to performance, however, micro-economic pay flexibility concedes the possibility that wage levels might be varied according to collective rather than individual performance. Macroeconomic, or external, pay flexibility refers to the variation of wage levels in response to fluctuations in the economy and external economic shocks. It is a useful category in that it apprehends the fact that pay flexibility need not be linked to the availability of labour or the performance of workers. That is, that workers may be asked to sacrifice pay in the interests of continued profitability, due to circumstances quite beyond their control.

Essentially, this discussion points to there being three main variants of pay flexibility. The first is the capacity to vary pay according to how easy or difficult it is to attract staff. The second concerns the ability to vary pay to reflect performance at the level of the individual worker or the workplace. Finally, pay flexibility may entail variations in response to economic fluctuations external to the workplace. Between them, these three variants cover the conceptions of pay flexibility provided by the three theories under consideration. The first form is integral to neomanagerialist and neo-Fordist theories. The second form is applicable to all three models. Like the first form, the third is an element of neo-managerialist and neo-Fordist versions of flexibility, but not the post-Fordist one.

PAYFLEX1 (Pay Flexibility in Response to Changed Demand) seeks to capture pay variations in response to economic and market changes external to the workplace. It is based on a question which asks managers about their long and short term responses to increases and decreases in demand for product or service, and gauges the extent to which pay variations would be chosen above other possible strategies.

PAYFLEX2 (Over Award Payments to Attract Staff) is an indicator of the extent to which employers vary pay to reflect supply and demand in the external labour market. It was not possible to get information about the extent to which pay was adjusted downwards, so PAYFLEX2 measures the extent to which managements pay above the legally required minimum rate to attract staff. It is based on a series of questions which ask managers to what extent they pay their staff above the award rate and why.

Finally, PAYFLEX3 (Performance Based Pay) is a measure of the extent to which pay is linked to performance. It is based on questions about the extent to which pay in the workplace is based on performance, whether it is based on individual, workgroup or workplace performance, and the proportion of staff who are paid on this basis. It thus covers both individual and collective forms of performance pay.

Together, these variables capture the sorts of pay flexibility dealt with by the three models of flexible production. They complete the range of variables necessary to capture the neo-managerialist "flexible firm" model as originally conceived by Atkinson. However, they do not capture all the features of the neo-Fordist and post-Fordist models. Discussion will now move to a number of additional categories of flexibility which are necessary to make sense of these models, and the variables constructed to capture them.

Working Time Flexibility

Working time flexibility, a category of labour market flexibility closely related to numerical flexibility, has been discussed by Michon (1987), Meulders and Wilkin (1987), Bamber (1990) and Rimmer (1990). It also appears in Atkinson's later work (1987), although his original formulation of the flexible firm does not include this form of flexibility. This category represents an acknowledgment that flexibility of labour input can be attained while maintaining constant employment levels. Working time flexibility clearly overlaps Atkinson's category of numerical flexibility, specifically the use of part-time workers. As well as part-time work, examples of this form of flexibility include: time-off for study or parenting; flexible starting or finishing times ('flexitime'); early or late retirement; overtime; short-time or stand down arrangements; shift-work; and flexible annual leave provisions.

While this category does not appear to be a very major departure from Atkinson's numerical flexibility, it is significant for two reasons. Firstly, as already noted, it acknowledges that flexibility of labour input can be achieved by means other than variations in staff numbers. Secondly, it acknowledges that labour input can be varied in ways which reflect the needs of workers as well as management. Although it may be driven by management needs, working time flexibility may involve improving and maintaining the working and living conditions of the labour force (Meulders and Wilkin 1987: 9). Further, it provides a category of variable labour input which is compatible with worker control in at least some of its manifestations. Thus, working time flexibility is, in its worker controlled variant compatible with

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the post-Fordist model, and in its management controlled variant it is compatible with the neo-Fordist and neo-managerialist models.

The AWIRS dataset contains information which makes possible the construction of variables which capture both worker and management controlled variants of working time flexibility. WTFLEX1 (Working Time Flexibility for Workers) is a measure of the extent to which workers have flexibility in determining the hours they work. It is based on a question which asks workplace managers to provide an indication of the degree to which workers control their own starting and finishing times. The second variable, WTFLEX2 (Working Time Flexibility in Response to Changed Demand) measures the extent to which managements seek to vary workers' hours, rather than adopting alternative strategies, in response to changes in demand for products or services.

Product Innovation

Product innovation is a category of labour process flexibility which goes beyond the neo-managerialist concern with labour inputs, and which is a necessary category for any typology which is to encompass post- and neo-Fordist versions of flexibility. It represent the replacement of "economies of scale" which apparently defined success in Fordist production by "economies of scope" (Harvey 1989: 155). Product innovation is identified by the frequency with which products are changed and the degree of variation between them (Badham and Mathews 1989: 208), as well as the ability to vary price, quality and production batch size in response to changes in demand (Rubery et al 1987: 132). Thus, examples would include a single organisation producing a range of products, especially if they were widely divergent lines, or frequent product changes.

There would appear to be no necessary link between this form of flexibility and either worker or management control. Either post- or neo-Fordist strategies could foster innovation. It was not possible to construct indicators of worker and management controlled product innovation from the AWIRS dataset, but is was possible to generate an indicator of this form of flexibility which would encompass both variants. PRDFLEX (Product Innovation) is constructed from a question which asks about recent major changes at the workplace. It is a dummy variable where the value "1" is assigned if the workplace has undertaken a major change in product or service and "0" if it has not. While this is a somewhat crude measure of the ability of workplaces to vary their output, it is nonetheless indicative of a tendency to do so.

Technical-Organisational Flexibility

Technical-organisational flexibility is a further category of labour process flexibility, which again goes beyond questions of labour input, and addresses the possibility of flexibility being an attribute of a workplace as an integrated productive unit. This category has been identified by Mahon (1987), Meulders and Wilkin (1987) and Goodwin and Maconachie (1990). It involves:

the capacity of the production unit to combine new techniques of organisation and diversified equipment into an overall structure, the purpose of which is to satisfy a demand which is uncertain both in volume and composition (Meulders and Wilkin 1987: 8).

A number of defining characteristics of this form of flexibility have been identified.

Firstly, technical-organisational flexibility is defined by the utilisation of the types of computer-based technologies discussed earlier in the paper, which potentially offer increased flexibility in production. Secondly, it involves forms of work organisation and training which maximise the ability of workers to utilise such equipment flexibly. These would include: multiskilling; job rotation; retraining; and skill upgrading (Goodwin and Maconachie 1990: 26; Meulders and Wilkin 1987: 9). Thirdly, it is characterised by new, flexible systems of purchasing and inventory control. An example is the introduction of Just-In-Time (JIT) systems, which involves minimising inventory and work in progress to reduce non-value adding costs (see Mathews [1989a: 79-85] for discussion of the role of such techniques in flexible organisations).

Technical-organisational flexibility corresponds very closely to the central features of the post-Fordist model. While the limited discussion of this category in the literature emphasises the positive aspects in the form of skill and autonomy, the elements which comprise technical-organisational flexibility are also consistent with neo-Fordism. Thus, it is possible to conceive of alternative post- and neo-Fordist versions of technical-organisational flexibility, the former involving worker autonomy and the latter management control.

It was not possible to construct alternative indicators of worker and management controlled versions of technical-organisational flexibility, but as was the case for product innovation it was possible to generate a generic indicator. TECFLEX (Technical Organisational Flexibility) is a measure of the usage of computerised technologies and associated flexible forms of management and work organisation. Since this form of flexibility is by definition a response to uncertainty about demand, and to the emergence of differentiated markets, the universe for this variable was restricted to workplaces where managers had identified issues of product quality and distinctiveness, as well as responsiveness to demand, as being keys to success for their workplace. For this universe of workplaces, a scale was constructed based on the extent of introduction of computerised technologies and new management systems, and major restructuring of the organisation of production.

Procedural Flexibility

A final form of flexibility must be added to the typology if it is to capture the key aspects of each of the three models. A number of authors have discussed the category of procedural flexibility, which refers to processes for introducing the various substantive forms of flexibility (Bamber, 1990; Goodwin and Maconachie, 1990; Rimmer and Zappala, 1988). This category can be seen as encompassing decision making procedures and mechanisms designed to introduce change. It is not part of the neo-managerialist model, nor of the neo-Fordist, but is important in terms of the post-Fordist conceptualisation of flexibility as entailing co-operative approaches to decision-making. While the existence of such mechanisms is not a sufficient condition for genuine co-operation in introducing change, it can be regarded as indicative at least of the potential for a co-operative approach.

PRCFLEX (Procedural Flexibility) is a measure of the extent of employment of consultative committees in workplaces. It is constructed from questions concerning the incidence and main purposes of workplace level communication mechanisms.

PRCFLEX is a scale with the lowest value allocated where there is no consultative committee in the workplace and the highest value where such a committee exists and its main purpose is to facilitate workplace change. It is considered to be a useful indicator of the potential for co-operative procedural flexibility.

Models of Flexibility

The preceding discussion has taken the analysis of flexibility from the level of the three rather generally specified theoretical models to that of different forms of flexibility and variants of each of the forms, and finally to the level of quantitative indicators of flexibility. Figure 3.1 provides a summary of the way in which the different forms and the corresponding variables constitute each of the models.

This process of specification has served two useful purposes. Firstly, it has considerably clarified what flexibility means in terms of concrete workplace practices. This deals to some extent with the lack of definitional precision surrounding discussions of flexibility. Secondly, it has provided the means to empirically investigate the problems central to the paper. The next part of the chapter will be concerned with the methods which were applied to the variables constructed from the AWIRS data as a means to elucidate the research problems.

FIGURE 3.1: THE FORMS OF FLEXIBILITY AND VARIABLES WHICH CONSTITUTE EACH OF THE THREE MODELS

MODEL	Neo- managerialist	Post-Fordist	Neo-Fordist
FORMS OF FLEXIBILITY	Numerical Functional Pay Working Time	Functional Pay Working Time Product Innovation Tech. Org. Procedural	Numerical Functional Pay Working Time Product Innovation Tech. Org.
VARIABLES	NUMFLEX1 NUMFLEX2 FUNFLEX PAYFLEX1 PAYFLEX2 PAYFLEX3 WTFLEX2	FUNFLEX PAYFLEX3 WTFLEX1 PRDFLEX PRCFLEX TECFLEX	NUMFLEX1 NUMFLEX2 FUNFLEX PAYFLEX1 PAYFLEX2 PAYFLEX3 WTFLEX2 PRDFLEX TECFLEX

Methods of Statistical Analysis

Three methods of analysis were utilised. Firstly, in dealing with the descriptive capacity of the models with reference to industry as a whole, simple frequency distributions of the independent variables were generated. This method allowed an assessment to be made of the extent of flexibility in the workplaces which constituted the sample.

Secondly, two and three-way cross-tabulations were generated. These were used to deal with the remainder of the research problems. Firstly, two-way cross-tabulations were used to explore the extent to which particular classes of workplaces rated higher or lower than other classes of workplaces in the sample, by cross-tabulating the independent variables by variables which captured the size of the workplace, whether it was in the public or private sector and which industry division it was part of. The construction of these control variables is discussed in the course of presenting the results, and specifications of the variables are presented in Appendix A.

Secondly, two-way cross-tabulations were utilised as a means to elucidate the associations between the independent variables and a series of dependent variables in the form of indicators of the other phenomena under consideration (for example, autonomy, skill and so on). Again, the dependent variables are described in the course of the presentation of results, and their precise specifications are provided in Appendix A. Thirdly, these latter two-way cross-tabulations were supplemented with three-way cross-tabulations via the introduction of the size, sector and industry variables. This was done as a means to control for possible size, sector and industry effects in the relationships identified by the two-way cross-tabulations.

Finally, correlations were generated between the dependent variables and the control variables, as a means to identify the cases where there were likely to be size, industry or sectoral effects. Only in cases where there were noteworthy and statistically significant correlations were three-way cross-tabulations generated. This method was utilised as a means to limit the number of three-way cross-tabulations by ensuring that they were only generated where size, sector or industry seemed likely to intervene in the association.

Regression analysis was also considered. However, the failure of this form of analysis to provide more useful information than cross-tabulations led to its rejection. See Harley (1994) for discussion of the use of regression analysis of the AWIRS data to explore associations involving flexibility.

The survey oversampled very large workplaces and some industry groups. This was done to with the aim of producing estimates with similar levels of precision in different sub-groups of the data when stratified by employment size or industry group (Callus et al. 1991: 219). However, the DIR weighted the data to compensate for this factor, and also to compensate for differential non-response between strata. All analysis reported here utilised weighted data. Additional technical detail relating to the survey can be found in the Technical Appendix to Callus et al. (1991: 217-22). All statistical analysis was undertaken using SAS® software Version 6.06, on the University of Queensland IBM mainframe system.

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THE DESCRIPTIVE POWERS OF THE MODELS

The question which the following discussion seeks to answer is whether any of the three models of flexibility captures developments in Australian industry as a whole, or in particular parts of industry. That is, are key features of the organisation of production in Australian workplaces captured by any of the models?

The discussion is divided into two parts. In the first, frequency distributions for each of the eleven flexibility variables are presented, and an assessment provided of the utility of each of the models of flexibility as a description of workplaces at the level of the whole AWIRS sample. In the second, a series of cross-tabulations is analysed to ascertain whether any of the models is an accurate description of workplaces in particular parts of industry.

The Models as Descriptions of Australian Industry

It is possible to test the validity of each model as a description of Australian industry using the variables described in the preceding section. To the extent that the workplaces in the survey sample demonstrate high levels of flexibility as measured by each of the variables constituting a given model, then one can argue that the model captures reality very well and has considerable utility as a means of describing concrete features of industry. Thus, the task of the discussion which follows is to assess the extent to which workplaces in the sample as a whole rate highly on the combination of variables which constitutes any of the three models.

This raises the need to clarify what would constitute a legitimate test of the models. Two approaches were considered. The first involved attempting some sort of precise quantitative test which would allow a very definite assessment of whether any model was valid. This would involve being able to set precise quantitative standards which the sample workplaces had to meet before any model could be regarded as valid. However, in practice such a test is difficult to apply. There is no absolute standard of flexibility against which to judge the sample. That is, the workplaces in the sample can only be compared to one another, or to some ideal standard of flexibility, rather than to any actually existing standard.

A possible variation would be to impose cut-off points on each of the variables (for example the mid-point of the variable's scale), and to insist that some proportion of the sample (perhaps fifty per cent) must fall above the cut-off on each of the variables which constitute a given model before the model can be considered valid. In practice however, the result of such a test would be rather meaningless. The variables are measures of a diverse range of phenomena, and have quite different scales, which means that they are not directly comparable with one another. Thus, it would be difficult to impose cut-offs which could be regarded as having genuine equivalence. While the results might have been systematically derived, they would lack real precision, and for this reason this first approach was rejected.

A more fruitful approach is to regard the models as ideal types, and to assess their relative degrees of correctness, rather than to seek an absolute test. If any of the models was a perfect description of reality, then the sample workplaces would have the maximum possible score on each of the variables constituting that model. At the other extreme, if none of the models is at all an accurate description, the sample workplaces will score the minimum possible on each variable. In practice the

outcome for each model will be somewhere between these two extremes. This method would not allow the hypothesis that any of the models is a description of reality to be falsified in a strict scientific sense. However, it allows an assessment to be made of each model in terms of how closely it matches the sample, and also allows specification of which aspects of each model most closely correspond to reality. To this extent it represents a useful and practical way of addressing part of the first research problem.

For the purposes of this analysis, each variable is to be considered as having equal weight. That is, none is to be considered more important than any other in assessing the validity of the models. This is partly because of the difficulties in assigning any sort of numerical weights to variables which for the most part lack equivalence. However, it is also partly because the variables constructed from the data represent only the most fundamental characteristics of each of the models, and it becomes difficult to reach any sort of judgement as to the relative importance of each.

The first model to be considered is the neo-managerialist one which comprises functional, numerical, working time and pay flexibility, and can be captured by seven variables (FUNFLEX, NUMFLEX1, NUMFLEX2, WTFLEX2, PAYFLEX1, PAYFLEX2, PAYFLEX3). Frequencies for each of the relevant variables will be discussed in turn, and then an assessment made of the validity of the model. Table 3.2 indicates that nearly 50 per cent of workplaces had none of the flexible forms of work organisation captured by FUNFLEX, and a further 31 per cent had only one. Less than 6 per cent had all three. This clearly indicates that on this measure the sample does not rate highly in terms of functional flexibility.

TABLE 3.1: FUNCTIONAL FLEXIBILITY (FUNFLEX) (ROW %)

NONE (0)	LOW (1)	MEDIUM (2)	HIGH (3)	TOTAL
47.4	31.1	15.7	5.8	100.0

N = 30469

Table 3.2 provides results for NUMFLEX1. Less than 7 per cent of respondents said that they would not respond to any change in demand by varying employee numbers or the extent of use of contractors, while almost 20 per cent said that they would respond to both long and short term increases and decreases in demand in this way. The figures show a considerable tendency to respond to changes in demand by changing quantity of labour input, and on this basis it can be argued that this form of flexibility is quite prevalent.

TABLE 3.2: NUMERICAL FLEXIBILITY FOR MANAGEMENT (NUMFLEX1) (ROW %)

NONE (0)	LOW (1)	2	3	HIGH (4)	TOTAL
6.9	17.2	38.1	20.0	17.8	100.0

N = 30469

Use of core/periphery strategies is measured by NUMFLEX2. Table 3.3 shows that only 10 per cent of respondents were in the category 100 (100 per cent of employees full time permanent). However, over 65 per cent were in the range 101 to 299. Less than 1 per cent were in the range from 600 to 799.

TABLE 3.3: CORE/PERIPHERY (NUMFLEX2) (ROW %)

NONE (100)	101-299	300-599	HIGH (600-799)	TOTAL
10.0	65.7	23.7	0.6	100.0

N = 30393

This indicates that while most workplaces show some evidence of a tendency to seek numerical flexibility by the use of "peripheral" workers, the bulk of workplaces do not show an overwhelming tendency to do so. Thus, it can be argued that some degree of division of workers into core and peripheral groups is widespread. However, it should be noted that these data may understate the real incidence of this approach to flexibility, due to a tendency for respondents to under-report the use of 'non-employee' workers (Callus et al. 1991: 37).

The only working time flexibility variable relevant to the neo-managerialist model is WTFLEX2. Table 3.4 shows that nearly 60 per cent of respondents claimed that they would not vary employees' hours in response to changes in demand, and none claimed that they would respond in this way to both long-term and short-term increases and decreases in demand. However, over one quarter of respondents said that they would vary hours worked in response to at least one of these instances of changed demand. Once again, this can be interpreted as indicating generally low levels of flexibility.

TABLE 3.4: WORKING TIME FLEXIBILITY IN RESPONSE TO CHANGED DEMAND (WTFLEX2) (ROW %)

NONE (0)	LOW (1)	2	3	HIGH (4)	TOTAL
57.4	25.9	15.6	1.1	0.0	100.0

N = 30469

Turning to pay flexibility, the incidence of variation in pay in response to changes in demand (PAYFLEX1) is minute. Ninety-seven per cent of respondents said that they would not respond to changes in demand by varying pay rates, as shown by Table 3.5.

TABLE 3.5: PAY FLEXIBILITY IN RESPONSE TO CHANGED DEMAND (PAYFLEX1) (ROW %)

NONE (0)	LOW (1)	2	3	HIGH (4)	TOTAL
97.0	2.5	0.5	0.0	0.0	100.0

N = 30469

This indicates extremely low levels of this form of pay flexibility. Results for the second pay flexibility variable (PAYFLEX2) are shown in Table 3.6. They indicate that almost 80 per cent of workplace managements claimed no use of over award payment as a means to attract staff. Of those which did use such payments for this purpose, however, just over 14 per cent paid between 51 and 100 per cent of employees on this basis. This suggests that while this form of pay flexibility is not widespread, its incidence cannot be regarded as entirely negligible.

TABLE 3.6: OVER-AWARD PAYMENTS TO ATTRACT STAFF (PAYFLEX2) (ROW %)

NONE	<10%	10-25%	26-50%	51-75%	76-99%	100%	TOTAL
79.2	3.1	2.1	1.4	2.5	4.1	7.5	100.0

NB Discrepancy is due to rounding.

Finally, the results for PAYFLEX3 shown in Table 3.7 indicate that nearly 70 per cent of workplaces had no performance-based pay. Of those which did have such pay systems, nearly 17 per cent paid a quarter or less of their employees on this basis. This indicates generally low levels of this form of flexibility.

These results provide little support for the claim that the neo-managerialist model captures the concrete reality of Australian workplaces. For four of the seven variables, more than 50 per cent of cases fell within the lowest possible category which was a score of zero. Of the three variables for which workplaces in the sample scored higher than this, only NUMFLEX1 had significant numbers of workplaces with moderately high scores. On each variable the data

TABLE 3.7: PERFORMANCE BASED PAY (PAYFLEX3) (ROW %)

NONE	1-25%	26-50%	51-75%	76-100%	TOTAL
68.8	16.8	4.4	2.9	7.1	100.0

N = 30392

indicate some incidence of flexibility, but in virtually no case is the evidence consistent with widespread adoption of those forms of flexibility which constitute the neo-managerialist model. Therefore, it can be concluded that the neo-managerialist model is not a good description of reality at the level of Australian industry as a whole.

The post-Fordist model is represented by six variables (FUNFLEX, PAYFLEX3, WTFLEX1, PRDFLEX, PRCFLEX, TECFLEX), two of which (FUNFLEX and PAYFLEX3) are also part of the neo-managerialist model. As reported above, the sample workplaces do not score highly on the latter two variables.

Table 3.8 indicates that the sample featured low levels of worker control over timing of labour input (WTFLEX1). Nearly 63 per cent of workplaces featured starting and finishing times determined solely by management, and in only 5 per cent of cases did workers set their own times.

TABLE 3.8: WORKING TIME FLEXIBILITY FOR WORKERS (WTFLEX1) (ROW %)

NONE (0)	1	HIGH (2)	TOTAL
62.9	32.2	4.9	100.0

N = 30469

Flexibility in terms of ability to vary the product or service generated by the workplace is measured by PRDFLEX. Workplaces in the survey rated very low on this measure with nearly 85 per cent having no flexibility, as shown by Table 3.9.

TABLE 3.9: PRODUCT INNOVATION (PRDFLEX) (ROW %)

NONE (0)	SOME (1)	TOTAL
83.4	16.6	100.0

N = 30430

Table 3.10 shows the frequency distribution for TECFLEX, which measures the extent of usage of new technologies and associated forms of management and work organisation. Just under 70 per cent of workplaces had no technical-organisational flexibility. Around 4 per cent were in the middle two categories. Interestingly, over one quarter of cases were in the highest category, indicating that those who adopt any of the measures captured by the variable tend to adopt all of them. The results suggest limited, but by no means negligible incidence of this form of flexibility.

TABLE 3.10: TECHNICAL ORGANISATIONAL FLEXIBILITY (TECFLEX) (ROW %)

NONE (0)	1	2	HIGH (3)	TOTAL
69.5	3.2	0.9	26.4	100.0

N = 30469

Procedural flexibility is measured by PRCFLEX which captures the extent of use of consultative committees to implement organisational change and/or the introduction of new technology. The sample rated very low indeed on this variable, as illustrated by Table 3.11. Over 85 per cent of cases had no such mechanisms in place, and only 4 per cent had committees concerned with both organisational change and the introduction of new technology.

TABLE 3.11: PROCEDURAL FLEXIBILITY (PRCFLEX) (ROW %)

NONE (0)	1	2	TOTAL
85.6	10.0	4.4	100.0

N = 30469

These results provide very little support for the claim that the post-Fordist model is an accurate representation of reality. As was the case for the neo-managerialist model, the distribution of each variable indicates that there is some incidence of each of the forms of flexibility in the sample, but by no means on a scale consistent with their widespread adoption. Therefore, the data suggest that the post-Fordist model is not a good representation of concrete developments in Australian industry.

The neo-Fordist model is an amalgam of the elements of the other two models, and comprises nine variables (NUMFLEX1, NUMFLEX2, FUNFLEX, PAYFLEX1, PAYFLEX3, WTFLEX2, PRDFLEX, TECFLEX), all of which have already been discussed with reference to the other two models. It encompasses all three of the numerical flexibility variables, of which only NUMFLEX1 had high levels. FUNFLEX is included in this model, and the sample rated fairly low on this measure. All three pay flexibility variables were included, and the results presented above indicate low scores on each of the indicators. The model also includes WTFLEX2 and PRDFLEX, for both of which the sample scored fairly lowly. The results for TECFLEX indicate limited, but not negligible, incidence.

These results lead to the same conclusion that was reached for the other two models. That is, that while there is some incidence of each form of flexibility which constitutes the model, it cannot be said to be a very good representation of reality. Only NUMFLEX1 had high levels, and for most of the remaining variables, more than half the cases fell in the lowest category. These results cannot be said to be consistent with the widespread adoption of the forms of flexibility which comprise the neo-Fordist model.

In a strict interpretation, the hypotheses that each model describes reality has not been disproved, since there is evidence of some incidence of each form of flexibility for which a variable was constructed. However, to the extent that any model is a good description of reality, there should be strong evidence of this in the form of consistently high scores on the relevant variables. Such strong evidence was not found. To the extent that the sample is representative, and that the variables capture

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the key elements of each model, the claim that any model is a *good* description of concrete features of Australian industry is not supported by the data.

Given that the test of each model is how closely the sample approximates it, one might ask whether any of the models is more strongly supported by the data than any other. If the sample had rated highly on a reasonable number of variables such an assessment would be useful. However, since low scores were obtained for most of the eleven variables which collectively constitute the three models, any such exercise would involve deciding which of three inaccurate representations of reality is the least inaccurate. This would seem to be clutching at straws. On the basis of the data, there is no indication that any of the models represents a significantly better approximation of reality than any other.

The Models as Descriptions of Particular Classes of Workplaces

While it has been established that none of the three models under consideration captures accurately patterns of flexibility in the sample as a whole, there remains the possibility that particular classes of workplaces may be more like the models than are others. This part of the chapter has two related aims. The first is to make an assessment of whether, within overall low levels of the forms of flexibility which constitute the models, workplaces in particular size bands, sectors, and/or industries are better captured by any of the models than are others. The second is to assess whether any such workplaces are accurately captured by any of the models.

The discussion which follows will be divided into five main parts. The first part will outline the method used in constructing cross-tabulations and employing them to assess the utility of the models as descriptions of particular parts of industry. Each of the following three parts will address one of the three dimensions on which workplaces can be grouped. These are size, public or private sector and Australian Standard Industry Classification (ASIC) industry division. The final part of the subsection will provide an assessment of the three models based on the preceding analysis.

As a means to identify patterns of flexibility, two-way cross tabulations were generated. Cross-tabulations were considered to be the most simple and effective means to identify whether particular classes of workplaces exhibited notably different levels of flexibility. Because of the need to keep the number of cross-tabulations manageable, it was decided to restrict the number of variables by which the flexibility variables were cross-tabulated to three. Each of the eleven variables which constitute the models was cross-tabulated with indicators of the number of employees at the workplace (SIZE), with location of the workplace in either the public or private sector (SECTORB) and with location within the Australian Standard Industrial Classification (ASIC) system (SECTORA) (see Appendix A for details of the construction of these variables).

Of the possible control variables size, sector and industry division were chosen for three main reasons. Firstly, it seems plausible that workplaces of different sizes and in different sectors and industry divisions will have developed different patterns of organisation, management and industrial relations. Secondly, since the crosstabulations will be used as a means to identify workplaces to be subjected to a more detailed survey in Chapter Four, it was necessary to choose variables which were of practical use in selecting workplaces. It is relatively straightforward to ascertain the

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size, sector and industry division of workplaces as part of a selection process, and for this reason these dimensions are attractive. Thirdly, the AWIRS data is organised in a way which allows the disaggregation of data on these three dimensions, which makes the cross-tabulations relatively simple to generate.

For the frequency distributions presented in the preceding part of the chapter, data were grouped in either of two ways. Where construction of the variables generated only a few categories they were left in these categories. In cases where there were fairly large numbers of categories, the categories were grouped so that they were distributed as nearly as possibly evenly. For the purposes of the cross-tabulations presented below, it was necessary to regroup the categories in some cases. This is because data in most frequency distributions were clustered towards the lower ends of the scales, often with very few cases in the highest category, and in some instances none.

Since an aim of this sub-section is to decide whether there are patterns within the overall distribution, the categories of "high", "medium" and "low" have been adjusted to reflect the actual distribution. In most cases this has been done by regrouping categories so that as nearly as possibly equal proportions of cases for the sample as a whole are in each category, although often it has not been possible to get equal proportions. In some instances there were so few high cases that it was considered more useful simply to divide the variable into the categories "low" and "high". Obviously dummy variables also had to be classified in this way. By regrouping the categories, the appellations "high", "medium" and "low" indicate positions within the actual distribution, rather than within the possible distribution allowed for by the construction of the variables. Thus, it allows one to ascertain whether, within the mostly low levels of flexibility demonstrated in the previous sub-section, some classes of workplaces are notably more flexible than others.

In the discussion which follows, patterns involving size, sector and industry division are dealt with in turn. In each case, an assessment is made of whether, on each of the variables constituting each of the models, a particular class or classes of workplaces exhibit significantly higher levels of flexibility than do other classes of workplaces or the sample as a whole. If a particular class of workplace consistently rated higher than others on all or most of the variables which constitute a given model, it could plausibly be argued that this class of workplaces was better captured by that model than were others. If it could also be shown that not only did that class tend to rate higher than others on all or most of the relevant variables, but that in absolute terms it had high levels of flexibility as measured by the variables, it could be argued that the model in question was a good description of that class of workplaces.

In testing the models, the first dimension to be considered is size. There appears to be little evidence that any of the three models corresponds much more closely to workplaces in any size band than do the other models. Of the eleven variables which collectively comprise the three models, there were notable patterns involving size for only three. Of the three variables, the neo-managerialist and the neo-Fordist models include NUMFLEX2 and FUNFLEX. For the first of these variables, smaller workplaces tended to rate more highly. Specifically, those workplaces with between 20 and 49 employees rated highly compared to those with 50 or more. In the case of FUNFLEX, workplaces with 500 or more employees rated highly, although there was no noteworthy correlation between this variable and size. The post-Fordist model also includes FUNFLEX, as well as PRCFLEX. PRCFLEX

rated more highly in workplaces with 50 or more employees than in those with 49 or less.

Clearly these figures do not indicate a consistent trend towards a particular size of workplace being disproportionately associated with all or most of the variables which comprise any of the three models. The most that can be said is that there is some trend toward labour market flexibility being associated with smaller workplaces and labour process flexibility with larger workplaces, but even this is not a strong trend. Further, even in size-bands which are associated with higher levels of flexibility, in no instance is more than 50 per cent of cases in the category "high". As an illustration, Table 3.12 shows a cross tabulation of size by PRCFLEX. PRCFLEX had the highest proportion of cases in a given size band (500+employees) falling in the category "high", yet even in this case more than half of workplaces were in the category "low".

TABLE 3.12: SIZE OF WORKPLACE AND PROCEDURAL FLEXIBILITY (PRCFLEX) (ROW %)

	PROCEDURAL FLEXIBILITY				
		LOW (0)	HIGH (1-2)	TOTAL	
NO OF	20-49	91.6	8.4	100.0	
EMPLOYEES	50-99	85.1	14.9	100.0	
	100-199	79.0	21.0	100.0	
	200-499	74.7	25.3	100.0	
	500+	51.6	48.4	100.0	
	ALL	85.6	14.4	100.0	

N = 30469

These findings suggest, firstly, that in few cases are high levels of flexibility associated with workplaces of particular sizes. Secondly, the findings lend negligible support to any claim that workplaces of a particular size correspond more closely to any of the three models than do workplaces of other sizes, or indeed that workplaces in any size band come at all close to being approximated by any of the models. Based on these conclusions it can reasonably be argued that none of the three models of flexibility constitutes a good description of workplaces in any particular size band.

Cross-tabulation of the flexibility variables by SECTORB (Public Sector / Private Sector) demonstrates a much clearer pattern than was the case for cross-tabulations by size. Of the seven variables constituting the neo-managerialist model, the public sector rated considerably higher than the private sector on two (NUMFLEX1 and FUNFLEX), and the private sector rated considerably higher than the public sector on four (NUMFLEX2, WTFLEX2, PAYFLEX3). For the nine variables which constitute the neo-Fordist model, the private sector rated

considerably higher than did the public sector on five (NUMFLEX2, WTFLEX2, PAYFLEX3, TECFLEX). Public sector workplaces rated considerably higher than did private sector ones on only two (FUNFLEX, NUMFLEX1). Of the six variables constituting the post-Fordist model, the public sector rated considerably higher than the private sector on five (FUNFLEX, WTFLEX1, PRCFLEX). Private sector workplaces rated more highly than did public sector workplaces on two variables (PAYFLEX3, TECFLEX).

While this analysis indicates that each of the models is more like one sector than the other, it does not support the contention that any of the models is a good approximation of either sector. Although in some cases there were quite large proportions of either public or private sector workplaces in the category "high", in most cases the bulk of workplaces were not in this category. For example, NUMFLEX2 had the highest proportion of private sector cases in the category "high" of any of the variables. However, as shown by Table 3.13, less than half of private sector workplaces were in this category for this variable.

TABLE 3.13: PUBLIC/PRIVATE SECTOR WORKPLACES (SECTORB) BY CORE/PERIPHERY (NUMFLEX2) (ROW %)

	CORE/PERIPHERY						
	LOW (100)	MEDIUM (101-199)	HIGH (200-799)	TOTAL			
PUBLIC SECTOR	9.8	60.1	30.1	100.0			
PRIVATE SECTOR	10.1	43.8	46.1	100.0			
ALL WORKPLACES	10.0	49.4	40.6	100.0			

N = 30393

TABLE 3.14: PUBLIC/PRIVATE SECTOR WORKPLACES (SECTORB)
BY NUMERICAL FLEXIBILITY IN RESPONSE TO
CHANGED DEMAND (NUMFLEX1) (ROW %)

	NUMERICAL FLEXIBILITY						
	LOW (0-1)	MEDIUM (2)	HIGH (3-4)	TOTAL			
PUBLIC SECTOR	18.1	34.1	47.8	100.0			
PRIVATE SECTOR	27.0	40.2	32.8	100.0			
ALL WORKPLACES	24.0	38.1	37.9	100.0			

N = 30469

Similarly, while NUMFLEX1 had the highest proportion of public sector workplaces in the category "high", they still constituted less than half of public sector workplaces as shown by Table 3.14.

For most of the variables in which one sector rated notably higher than the other, even in the higher rating sector less than one third of workplaces fell in the category "high". While on most variables one sector rated higher than the other, in no instance did the majority of cases fall in the category "high" and in most instances less than one third did.

These results suggest three conclusions. Firstly, the neo-managerialist and neo-Fordist models are better representations of the private sector than of the public sector. The forms of labour *market* flexibility which predominantly constitute them are more prevalent in the former sector. Secondly, and conversely, the post-Fordist model is a better representation of the public sector than of the private sector. The forms of labour process flexibility which largely constitute it are more prevalent in the public sector. Thirdly, and in spite of this, it cannot be argued that any of the models matched very precisely either the public or the private sector. The neomanagerialist model had only four out of seven variables for which higher scores were obtained in the private sector, and the neo-Fordist model only five out of nine. making them roughly as accurate as each other as approximations of developments in each sector. In the case of the post-Fordist model only three out of six variables scored higher in the public sector, making it marginally less accurate. However, it can only be argued that the models very roughly capture workplaces in each sector based on this analysis, because for none of the variables discussed did either sector have the majority of workplaces in the category high, and in most cases less than one third of workplaces fell in this category. Thus, on this basis each of the models must be rejected as a sound approximation of reality for the majority of workplaces in either sector.

Analysis of cross-tabulations of the flexibility variables by ASIC industry division leads to the conclusion that the models are better descriptions of some parts of industry than of others. The industry division which came the closest to being approximated by the neo-managerialist model was Finance, Property and Business Services. On four of the seven variables which constituted the model (NUMFLEX1, PAYFLEX1, PAYFLEX2, and PAYFLEX3), this division had notably higher proportions in the category "high" than did other divisions and the sample as a whole. Table 3.15 shows that for the variable NUMFLEX1, almost 60 per cent of workplaces in this division fell into the category "high", compared to less than 40 per cent for the sample as a whole.

TABLE 3.15: ASIC INDUSTRY DIVISION (SECTORA) BY NUMERICAL FLEXIBILITY IN RESPONSE TO CHANGED DEMAND (NUMFLEX1) (ROW %)

	NUMERICAL FLEXIBILITY				
	LOW (0-1)	MEDIUM (2)	HIGH (3-4)	TOTAL	
MINING	46.7	45.6	7.7	100.0	
MANUFACTURING	34.2	41.2	24.6	100.0	
ELEC. GAS & WATER	18.3	33.8	47.9	100.0	
CONSTRUCTION	10.8	39.0	50.3	100.0	
WHOLESALE & RETAIL TRADE	18.6	45.8	35.7	100.0	
TRANSPORT & STORAGE	36.4	36.0	27.6	100.0	
COMMUNICATION	8.4	53.8	37.8	100.0	
FIN. & BUS. SERVICES	10.7	29.4	59.9	100.0	
PUBLIC ADMINISTRATION	13.6	33.2	53.2	100.0	
COMMUNITY SERVICES	26.7	31.8	41.4	100.0	
REC. & PERSONAL SERVICES	29.3	40.5	30.2	100.0	
ALL INDUSTRIES	24.0	38.1	37.9	100.0	

N = 30469

NB discrepancies in totals are due to rounding.

However, for the remaining three variable on which this division rated notably highly only small proportions of workplaces fell into the category "high". The proportions ranged from a minimum of just under 5 per cent for PAYFLEX1 to a maximum of 28 per cent for PAYFLEX3.

These results indicate that while the Finance, Property and Business Services division may rate notably higher on more of the variables which constitute the neomanagerialist model than does any other industry division, the model is not an accurate representation of this sector. Firstly, the sector rates disproportionately highly on only half the variables which constitute the model. Secondly, for three of the four variables only a small percentage of workplaces fall into the highest category. Thus, while it comes closest to being captured by the neo-managerialist model it does not come very close.

Turning to the post-Fordist model, it most closely approximates the Communication division and the Finance, Property and Business Services division. The Communication division rated particularly highly on four of the seven variables which constitute the post-Fordist model (FUNFLEX, WTFLEX1, PRDFLEX and TECFLEX). The Finance, Property and Business Services division also rated notably highly on four variables (PAYFLEX3, WTFLEX1, PRDFLEX and TECFLEX). However, as was the case for the neo-managerialist model, these results can hardly be considered as supportive of the claim that the post-Fordist

model is a good description of reality in either of these industries. Table 3.16 shows a cross-tabulation of industry division by TECFLEX.

TABLE 3.16: ASIC INDUSTRY DIVISION (SECTORA) BY TECHNICAL ORGANISATIONAL FLEXIBILITY (TECFLEX) (ROW %)

	TECHNICAL ORGANISATIONAL FLEXIBILITY				
	LOW (0)	MEDIUM (1-2)	HIGH (3)	TOTAL	
MINING	77.7	1.8	20.6	100.0	
MANUFACTURING	56.0	3.5	39.5	100.0	
ELEC. GAS & WATER	89.0	1.2	9.8	100.0	
CONSTRUCTION	78.6	0.8	20.6	100.0	
WHOLESALE & RETAIL TRADE	61.5	7.3	31.3	100.0	
TRANSPORT & STORAGE	74.5	8.1	17.4	100.0	
COMMUNICATION	42.3	9.9	47.8	100.0	
FIN. & BUS. SERVICES	58.0	3.9	38.0	100.0	
PUBLIC ADMINISTRATION	100.0	0.0	0.0	100.0	
COMMUNITY SERVICES	89.3	0.6	10.1	100.0	
REC. & PERSONAL SERVICES	62.8	6.7	30.5	100.0	
ALL INDUSTRIES	69.5	4.1	26.4	100.0	

N = 30469

NB Discrepancies in totals are due to rounding.

Both Communications and Finance, Property and Business Services have higher proportions in the category "high" on this variable than on any other, yet the former has less than half its workplaces in this category and the latter less than 40 per cent. For the majority of divisions considerably less than one third of workplaces are in the category "high" for any of the variables.

For example, Table 3.17 shows figures for WTFLEX1, a variable on which both of the industry divisions rate disproportionately highly. The table shows that in each case only a very small proportion (less than one quarter of cases) fall into the category "high" on this variable.

These results suggest two conclusions. Firstly, no industry division rates highly on more than just over half of the variables constituting the post-Fordist model. Secondly, even were such a proportion of the variables considered indicative of a match between the model and any industry division, the actual proportions of workplaces in any division which fall into the category "high" for any variable are relatively small. Together these findings suggest that the post-Fordist model is not a very good representation of patterns of flexibility in any of the ASIC industry divisions.

TABLE 3.17: ASIC INDUSTRY DIVISION (SECTORA) BY WORKING TIME FLEXIBILITY IN RESPONSE TO CHANGED DEMAND (WTFLEX1) (ROW %)

	WORKING TIME FLEXIBILITY FOR MANAGEMENT			
	LOW (0)	MEDIUM (1)	HIGH (2)	TOTAL
MINING	49.8	38.2	12.0	100.0
MANUFACTURING	69.7	26.8	3.6	100.0
ELEC. GAS & WATER	70.2	27.9	2.0	100.0
CONSTRUCTION	76.2	23.2	0.6	100.0
WHOLESALE & RETAIL TRADE	68.0	30.3	1.7	100.0
TRANSPORT & STORAGE	74.6	24.7	0.7	100.0
COMMUNICATION	53.9	33.9	12.1	100.0
FIN. & BUS. SERVICES	46.9	41.1	12.1	100.0
PUBLIC ADMINISTRATION	39.2	39.5	21.3	100.0
COMMUNITY SERVICES	57.7	37.7	4.6	100.0
REC. & PERSONAL SERVICES	71.4	28.6	0.0	100.0
ALL INDUSTRIES	62.9	32.2	4.9	100.0

N = 30469

NB Discrepancies in totals are due to rounding.

Finally, a similar conclusion can be reached concerning the neo-Fordist model. The only division which rates highly on a noteworthy proportion of the variables which constitute the model is the Finance, Property and Business Services division, which rates highly on six of the nine variables (NUMFLEX1, PAYFLEX1, PAYFLEX2, PAYFLEX3, PRDFLEX and TECFLEX). However, as was the case for the other models, on most of the variables only a small proportion of workplaces fell in the category "high". Indeed only NUMFLEX1 had more than 50 per cent of Finance, Property and Business Services workplaces in this category. With the exception of TECFLEX, the remaining five variables had less than one third of workplaces in this sector in the "high" category. In the case of PAYFLEX1, while in relative terms this sector had high levels of this form of pay flexibility, less than five per cent of Finance, Property and Business Services workplaces fell in this category, as illustrated by Table 3.18.

TABLE 3.18: ASIC INDUSTRY DIVISION (SECTORA) BY PAY FLEXIBILITY IN RESPONSE TO CHANGED DEMAND (PAYFLEX1) (ROW %)

	PAY FLEXIBILITY FOR MANAGEMENT			
	LOW (0)	HIGH (1)	TOTAL	
MINING	99.2	0.9	100.0	
MANUFACTURING	97.8	2.2	100.0	
ELEC. GAS & WATER	100.0	0.0	100.0	
CONSTRUCTION	100.0	0.0	100.0	
WHOLESALE & RETAIL TRADE	94.8	5.2	100.0	
TRANSPORT & STORAGE	98.7	1.3	100.0	
COMMUNICATION	100.0	0.0	100.0	
FIN. & BUS. SERVICES	95.4	4.6	100.0	
PUBLIC ADMINISTRATION	100.0	0.0	100.0	
COMMUNITY SERVICES	97.5	2.5	100.0	
REC. & PERSONAL SERVICES	94.9	5.1	100.0	
ALL INDUSTRIES	97.0	3.0	100.0	

N = 30469

NB Discrepancies in totals are due to rounding.

These findings suggest that, once again, the model being assessed is not a very good representation of patterns of flexibility prevalent in workplaces in the Finance, Property and Business Services division, even though this is the sector which most closely matches the model.

Analysis of cross-tabulations of the flexibility variables by ASIC industry division has led to some significant conclusions. Firstly, one industry division more closely matches all of the models than does any other. Specifically, the Finance, Property and Business Services division most closely matches the neo-managerialist and neo-Fordist models. The Finance, Property and Business Services division also best matches the post-Fordist model, although the Communication division is equally close a match. Secondly, none of the models actually matches very closely even the sectors to which they most closely correspond. That is, while a particular model may match a particular sector better than any other sector, it simply cannot be claimed that any of the models is a good representation of patterns of flexibility in any sector.

The results obtained by cross-tabulating the flexibility variables by size, public/private sector and ASIC industry division have suggested a number of specific conclusions. Firstly, size is not important. In very few cases were there any obvious patterns which would suggest that workplaces of particular sizes were characterised by high levels of particular sorts of flexibility. There was insufficient

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evidence to make any claim that workplaces in specific size bands more closely matched any of the models than did those in other size bands. There was certainly no basis for the argument that workplaces in particular size bands corresponded at all closely to any of the models.

Secondly, there were clear patterns which indicated a tendency for public sector and private sector workplaces respectively to be characterised by the incidence of different forms of flexibility. Further, it is clear that public sector workplaces are better described by the post-Fordist model than by the other two models, and that conversely the private sector is better described by the neo-managerialist and neo-Fordist models than by the post-Fordist. Notwithstanding this finding, the post-Fordist model is at best a very rough approximation of patterns of flexibility in public sector workplaces and the neo-managerialist and neo-Fordist models are similarly crude approximations of workplaces in the private sector. Thus, the claim that any model is an accurate representation of workplaces in either sector cannot be sustained.

Thirdly, different industry divisions were characterised by different patterns of flexibility. The Finance, Property and Business Services division corresponded most closely to the neo-managerialist, neo-Fordist and post-Fordist models. However, no division rated notably highly on all or most of the variables which constitute any of the models. Further, even for the variables where a particular division rated notably higher than other divisions, in most cases a relatively small minority of workplaces in that division fell in the category "high" on any of the variables. Thus, while it can be argued that the models are more accurate representations of workplaces in some industry divisions than in others, it cannot be claimed that any of the models is an accurate representation of workplaces in any industry division.

These three conclusions lead to a fourth one. That is that, while the models are better representations of some parts of industry than of others, none of them is a very accurate representation of any part of industry, at least as the sample was subdivided for the purposes of preparing the cross-tabulations described above.

An Assessment of the Descriptive Powers of the Models

The preceding part of the chapter has provided an assessment of the extent to which the neo-managerialist, post-Fordist and neo-Fordist models of flexibility are adequate approximations of concrete developments in Australian industry. It has sought to test three competing propositions, each being that one of the models is an accurate representation of key features of Australian industry, or parts thereof. It has been demonstrated that none of the models is a good description of Australian industry as captured by the AWIRS survey. It has also been shown that while the models are better descriptions of some parts of industry than others, none is an accurate description of workplaces in a particular size band, in either the public or private sector or in any industry division. On this basis it is considered reasonable to reject the claim that any of the models has utility as a description of patterns of flexibility in Australian workplaces.

This finding is significant in that it calls into question the robustness of the three theories of flexibility. To the extent that theorists of flexibility argue that any of the models represents a means to make sense of contemporary features of the organisation of production, the results reported above undermine considerably their

claims and, by implication, the three theories of flexibility. This is problematic if one wishes to apprehend the nature of developments in production. Indeed it suggests that the models should be dispensed with.

Rejection of the three models as descriptions of reality has implications for the analysis of outcomes of flexibility in the remainder of this paper. If theorists propose that a given model is associated with particular outcomes it is logical to attempt to seek relationships between all the forms of flexibility constituting that model on one hand, and the hypothesised outcomes on the other, as a means to test their theoretical claims. However, since it has been demonstrated that the combinations of flexibility which constitute each model are not widespread, it would seem foolish to seek relationships between them and other outcomes. Thus, attempts to link models to outcomes seem likely to prove fruitless, and the preferred approach is to seek relationships between specific forms of flexibility as captured by the variables, and other outcomes. This is the approach which will be adopted in the second half of this chapter.

THE CONSEQUENCES OF FLEXIBILITY

The discussion in this section is divided into three parts, each of which deals with a substantive problem concerning the consequences of flexibility. The first problem to be dealt with concerns the relationships between labour process flexibility, skill and autonomy. The second problem concerns the relationships involving a division of workers into core and peripheral groups, and inequality.

Labour Process Flexibility, Skill and Autonomy

The aim of the discussion which follows is to assess the relationships between a number of forms of labour process flexibility on one hand, and autonomy and skills on the other. This will allow more specific and firm conclusions about the claims of neo-managerialism, post-Fordism and neo-Fordism. The discussion is divided into two main parts. The first is concerned with the issue of skill, and the second with autonomy.

Flexibility and Skill

The AWIRS data do not allow the construction of variables which directly measure worker's skill levels. However, indicators of training provision have been constructed, and these provide useful proxy indicators of the amount of attention paid to skill formation in a workplace. TRAIN1 is a measure of the incidence of study leave or assistance, and TRAIN2 a measure of formal training provision. For details of the construction of all the dependent variables, see Appendix A. As a first step in examining possible associations between labour process flexibility and skill, cross-tabulations of the relevant flexibility variables (FUNFLEX, PRDFLEX, PRCFLEX) with the training variables were investigated.

With the exception of TECFLEX, all the flexibility variables were positively associated with TRAIN1. Table 3.19 is a cross-tabulation of PRCFLEX by TRAIN1 which illustrates the relationship between procedural flexibility and study assistance.

TABLE 3.19: PROCEDURAL FLEXIBILITY (PRCFLEX) BY PROVISION OF STUDY ASSISTANCE (TRAIN1) (ROW %/N)

	PROVISION OF STUDY ASSISTANCE				
		NO ASSISTANCE	ASSISTANCE	TOTAL	
PROCEDURAL	LOW (0)	45.9	54.1	100.0	
FLEXIBILITY		11963	14080	26043	
	HIGH (1-2)	25.4	74.7	100.0	
		1115	3284	4400	

NB Discrepancies in totals are due to rounding.

The table shows that a considerably larger proportion of workplaces with high levels of procedural flexibility (75 per cent) provided assistance than was the case for workplaces with low levels of procedural flexibility (54 per cent). Thus, there is a clear positive association between procedural flexibility and this form of training. Cross-tabulations of FUNFLEX and PRDFLEX by TRAIN1 show a very similar pattern, although the relationship is rather weaker in the latter case.

In the case of TECFLEX, nearly 60 per cent (59.9) of workplaces with low flexibility had provided study assistance, while only slightly more than half (51.6 per cent) of those with high levels of technical-organisational flexibility had done likewise. This indicates that there is a clear, if not striking, association between high levels of this form of flexibility and lower levels of this measure of skill formation.

A very similar pattern emerges in the case of TRAIN2. In all cases, a notably higher proportion of those workplaces with high flexibility had provided formal training to staff than was the case for workplaces with low levels of flexibility. Again, the exception was TECFLEX, where fewer workplaces with high flexibility had provided training than was the case for those with low flexibility. Therefore, the general conclusion to be drawn based on both measures of training is that there are varying degrees of positive association between labour process flexibility and training, except in the case of technical-organisational flexibility where there is a negative association.

While this analysis indicates that there is an association between flexibility and training, the possibility remains that the apparent relationship simply reflects the fact that higher levels of flexibility happen to be found in the same parts of industry which feature higher levels of training, rather than there being any direct relationship between the two phenomena. Two methods were considered as means to assess the influence of other factors. The first was the employment of multivariate regression analysis, and the second was the generation of three-way cross-tabulations. It was decided that the latter was the more appropriate technique. Therefore, it was decided to generate a series of three-way cross-tabulations as a means to control for industry, sector and size effects.

To generate cross-tabulations of each of the control variables by each of the flexibility variables by each of the training variables would have generated an

unmanageable number of tables. To overcome this problem, correlations between each of the training variables and the controls were examined, with the intention of generating three-way cross-tabulations only in cases where the dependent variable was statistically significantly correlated with the control variable. TRAIN2 was not statistically significantly correlated with any of the controls. It was found that TRAIN1 was statistically significantly correlated with a number of the SECTORA dummy variables. However, because all the correlation co-efficients were small (all below $r=\pm 0.20$), indicating only very weak associations between the training variables and the controls, it was decided that there was no need to generate three-way tables.

The data analysis reported here has shown two things of particular relevance to the problem at hand. Firstly, there appears to be a negative association between technical-organisational flexibility and skills. This substantially weakens the argument, made in post-Fordist and neo-managerialist literature, that the use of computerised equipment and new management techniques to adapt rapidly to changing demand for products and services will require highly skilled workers. That the data indicate a negative association between these two forms of flexibility and training is not inconsistent with the existence of a process of deskilling. This is consistent with the claims of neo-Fordist theorists that technical organisational flexibility can be introduced without a requirement to provide workers with new skills. The second finding is that there is a link between product innovation, functional flexibility, procedural flexibility and skills. This can be interpreted as providing support for the optimism of post-Fordism and neo-managerialism.

Flexibility and Autonomy

The same four independent variables were employed here to seek associations between flexibility and autonomy. Two indicators of autonomy were constructed. AUT1 is a measure of the extent to which workers have control over how they perform their work. AUT2 is an indicator of input by employees to workplace change which effects them. It should be noted that, because AUT2 only applies to workplaces which have had significant change, the number of cases involved is somewhat smaller and the sample less representative than is the case for other variables analysed in this chapter. Consequently, the findings concerning this dimension should be regarded as less generally applicable than other findings reported here.

As was the case for the analysis regarding skill, the first step undertaken was the construction of a series of cross-tabulations of the flexibility variables with the autonomy variables. There was no apparent association between product innovation (PRDFLEX) and either measure of autonomy, but both functional flexibility (FUNFLEX) and procedural flexibility (PRCFLEX) were positively associated with both measures. Table 3.20 illustrates the relationship between procedural flexibility (PRCFLEX) and worker control (AUT1).

TABLE 3.20: PROCEDURAL FLEXIBILITY (PRCFLEX) BY WORKER CONTROL OF HOW WORK IS PERFORMED (AUT1) (ROW %/N)

		WORKER CONTROL				
		LOW (0-6)	MEDIUM (7-9)	HIGH (10-15)	TOTAL	
PROCEDURAL FLEXIBILITY	LOW (0)	33.4 8659	35.0 9075	31.6 8208	100.0 25942	
	HIGH (1-2)	26.9	27.2	45.9	100.0	
		1180	1194	2017	4391	

NB Discrepancies in totals are due to rounding.

The table shows that of workplaces with no formal consultative mechanism (PRCFLEX = 0) less than one third featured high levels of workers having control over how they did their jobs. On the other hand, of workplaces which had such a consultative mechanism and/or used it to facilitate change, almost half also had high levels of worker autonomy, and only slightly more than one quarter had low levels of autonomy. Cross-tabulations of FUNFLEX with AUT2 and AUT1, and of PRCFLEX with AUT2 show very similar patterns and for this reason are not reproduced here.

Table 3.21 illustrates the negative association between the use of computerised technologies/new management techniques (TECFLEX) and workers having input to decisions concerning workplace change (AUT2). The table shows that of workplaces with computer-integrated management (CIM) systems, total quality control (TQC) and just-in-time (JIT) inventory control (TECFLEX=3) and which had introduced major workplace changes effecting workers, in over 20 per cent of cases workers were not even informed of the changes. In a further 46 per cent of cases they were informed. In less than a third of cases were workers consulted or given the opportunity to have input to the decision. In contrast, in over 40 per cent of workplaces without CIM, TQC or JIT workers were consulted or had input to changes effecting them. A similar pattern between TECFLEX and AUT1 emerged, although it was not striking. Of those with high levels of technical-organisational flexibility (TECFLEX=3), in 30.7 per cent of workplaces workers had high levels of control over how they performed their work. Conversely, of those workplaces with none of the techniques captured by TECFLEX, 35.6 had high levels of worker autonomy.

TABLE 3.21: TECHNICAL ORGANISATIONAL FLEXIBILITY (TECFLEX) BY WORKER INPUT TO WORKPLACE DECISIONS (AUT2) (ROW %/N)

	WORKER INPUT TO DECISIONS					
		LOW (0)	MEDIUM (1)	HIGH (2-4)	TOTAL	
	LOW (0)	12.7 1169	44.5 4105	42.8 3942	100.0 9215	
TECH. ORG FLEXIBILITY	MEDIUM (1-2)	11.6 63	30.0 162	58.3 315	100.0 540	
	HIGH (3)	22.3 776	46.2 1610	31.5 1097	100.0 3482	

NB Discrepancies in totals are due to rounding.

In view of the possible industry, sector or size effects discussed above with reference to training, a correlation matrix of the autonomy variables by SECTORA, SECTORB and SIZE was generated. The only notable statistically significantly correlation was between AUT1 and COMSER (the dummy variable indicating the location of workplaces in the Community Services industry division) (r=0.26, t=0.0001). Therefore, three-way cross-tabulations of each of the flexibility variables by AUT1 by COMSER were generated. The three way cross-tabulations show that the positive associations between functional flexibility, procedural flexibility and autonomy hold for workplaces both within and outside this industry division. Table 3.22 illustrates this for PRCFLEX and AUT1.

TABLE 3.22: EXTENT OF PROCEDURAL FLEXIBILITY (PRCFLEX) BY HIGH LEVELS OF WORKER CONTROL OF HOW WORK IS PERFORMED ("HIGH" AUT1) BY COMMUNITY SERVICES/OTHER DIVISIONS (% OF WORKPLACES WITH HIGH LEVELS OF AUTONOMY IN THAT DIVISION/N)

		INDUSTRY DIVISION			
		COMMUNITY SERVICES	OTHER DIVISIONS		
	LOW	51.4	27.2		
PROCEDURAL	(0)	2427	5781		
FLEXIBILITY	HIGH	63.2	33.1		
	(1-2)	1182	835		

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The table shows that in the Community Services division a greater proportion of workplaces have high levels of autonomy than is the case for other divisions (as suggested by the correlation between COMSER and AUT1). Further, the difference in levels of autonomy between workplaces with different levels of flexibility is more marked in the Community Services division. Nonetheless, a greater proportion of those with high levels of procedural flexibility have high autonomy than of those with low levels of this form of flexibility, in the Community Services division and in other divisions. This suggests that the apparent positive association between flexibility and autonomy is not simply the result of workplaces with higher levels of flexibility falling into the same division as those with higher levels of autonomy.

However, in the Community Services division the negative association between TECFLEX and AUT1 disappears. This suggests that the apparent association in the sample as a whole may be an artefact of the generally lower levels of autonomy in the other ten industry divisions. This weakens any claim that TECFLEX is universally associated with lower levels of worker autonomy. Nonetheless, it can still be argued that the negative association holds in most of industry.

The foregoing analysis allows a number of conclusions about the relationship between labour process flexibility and autonomy. The first is that procedural flexibility in the form of formal consultative mechanisms (PRCFLEX) appears to be positively associated with autonomy in terms of worker control over the way in which work is carried out (AUT1) and in terms of worker input to processes of change affecting employees (AUT2). Secondly, functional flexibility in the form of redesigned jobs, semi-autonomous work groups and team working (FUNFLEX) is also positively associated with these two measures of autonomy. Thirdly, technicalorganisational flexibility in the form of computerisation and new management techniques (TECFLEX) is negatively associated with worker input to change (AUT2). It is also apparently negatively associated with worker control over how work is carried out (AUT1), but this association is not universal and as such this finding should be treated with a degree of caution. Finally, there appears to be no association, either positive or negative, between product innovation (PRDFLEX) and either measure of autonomy. With the exception of the qualification concerning TECFLEX, and the lack of relationships between PRDFLEX and autonomy, these conclusions are rather similar to those concerning labour process flexibility and skill.

Together, the results concerning skill and autonomy form an interesting pattern. They suggest that both skill and autonomy are positively associated with functional flexibility and procedural flexibility, and that skill is positively associated with product innovation. Technical organisational flexibility tends to be negatively associated with both skill and autonomy.

The data analysed here suggest that the links between labour process flexibility and skill depend upon the sort of labour process flexibility involved. The forms which are linked to autonomy have in common that they involve some sort of mechanisms which potentially entail worker input to the production process. In the case of FUNFLEX this is through forms of work organisation which seem likely to be enhanced by adaptability and participation, and in the case of PRCFLEX it is via consultative mechanisms which can be used to facilitate workplace change. To the extent that the phenomena captured by FUNFLEX and PRCFLEX do in practice entail worker input, then this finding is quite consistent with the claim of post-

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Fordist and neo-managerialist theory that where worker input to production is present, there is likely to be a requirement for autonomous workers. While there is no link between product innovation and autonomy, there is one between the former and skill. This lends further support to the claim that to be adaptable, workplaces must devote attention to skills.

Nonetheless, it may be the case that those workers who enjoy the apparent benefits of autonomy and training form the privileged "core" group within workplaces and industries which is a feature of neo-managerialist and neo-Fordist models. Since the AWIRS data uses the workplace as its unit of analysis it is not possible to make judgements concerning individual workers. However, the data presented in the next part of the chapter demonstrates a clear link between high levels of peripheral work and low levels of autonomy and training, and this is suggestive of the existence of a relatively skilled and autonomous core and a disadvantaged periphery. Nonetheless, for the present the associations involving most forms of labour process flexibility, and skill and autonomy, must be regarded as consistent with the optimism of post-Fordist theory.

Turning to the other form of labour process flexibility, technical-organisational flexibility, the post-Fordist position finds no support whatsoever. A central claim of post-Fordist accounts of flexibility, and to a lesser extent those of neomanagerialism, is that flexibility will be driven in large part by the need to change products and services to meet changing demand. This will entail the use of computerised technologies and new forms of management, which to be maximally flexible will require skilled and autonomous workers. The evidence presented here shows a negative association between such forms of flexibility and skill, and also between them and autonomy. To the extent that this provides support for the claims of any theoretical stance, it is that adopted by the neo-Fordist school.

Peripheral Employment, Working Conditions and Gender

The proposition considered in the discussion which follows is that peripheral jobs have various negative outcomes for the workers who occupy them and that, because such jobs are filled by women more commonly than by men, their growth is likely to reinforce patterns of inequality in the workplace and beyond. The analysis is divided into two main parts. The first considers the association between peripheral jobs and: pay levels; employment security; training; and autonomy. The second part moves to an analysis of the relationships between peripheral jobs and the employment of women.

The first proposition to be tested is that peripheral work is associated with lower rates of pay than standard forms of work. The extent of peripheral work in a workplace is captured by NUMFLEX2. PAYLEV is a measure of how pay rates in a given workplace compare to those in other workplaces in the same industry, based on an assessment by workplace managers of whether their workers are paid more or less than other workers in the same industry, or about the same. For the sample as a whole, under one third (32.9 per cent) said that they paid above average. A cross-tabulation of NUMFLEX2 by PAYLEV showed that in workplaces with high levels of peripheral work, considerably fewer managers (only 26.6 per cent) claimed to pay above the average. Conversely, in workplaces with one-hundred per cent permanent full-time employees, over 40 per cent (42.1) claimed above average pay rates. Interestingly, a slightly higher proportion of

workplace managers in workplaces with 100 per cent permanent full-time employees (18.1 per cent) claimed to pay below average, and a slightly lower proportion of those in workplaces with high levels of numerical flexibility (12.4 per cent), than was the case for the sample as a whole (14.3 per cent). This analysis suggests that while peripheral jobs are not positively associated with below average pay levels, they are quite markedly negatively associated with workers being paid above average rates.

A useful supplementary indicator of relative pay rates is the incidence of over-award payments. This is captured by OAWRD, which is a measure of the proportion of employees in a workplace paid above the award rate. A frequency distribution for OAWRD shows that over half of workplaces (51.6 per cent) paid at least some of their staff over the award rate, but that nearly 30 per cent (27.9) paid over half their employees over the award rate. This suggests that over award payments are common. If such payments tend to be paid less to peripheral workers than to workers in general this would indicate that peripheral workers are disadvantaged in terms of pay levels.

Indeed, the data suggest that there is a negative association between the employment of peripheral workers and the payment of over award rates, as shown by Table 3.23 which presents a cross-tabulation of NUMFLEX2 by OAWRD.

TABLE 3.23: CORE/PERIPHERY (NUMFLEX2) BY PROPORTION OF STAFF PAID OVER THE AWARD RATE (OAWRD) (ROW %/N)

		EXTENT OF OVER AWARD PAYMENT			
		LOW (0%)	MEDIUM (<10-50%)	HIGH (51-100%)	TOTAL
	LOW (100)	41.1 1246	13.7 416	45.2 1369	100.0 3031
CORE/ PERIPHERY	MEDIUM (101-199)	48.8 7301	17.8 2663	33.4 5000	100.0 14964
	HIGH (200-799)	51.5 6355	32.8 4051	15.7 1935	100.0 12341

Nearly half of those workplaces with 100 per cent permanent full-time employees paid more than half of their employees (51.5 per cent) over the award rate. Only a third (32.8 per cent) of those with medium levels of peripheral employment did so, while a mere 15.7 per cent of those with high levels of numerical flexibility paid more than half of their employees over the award rate. This clearly indicates that workers in workplaces with higher rates of peripheral employment are less likely to be paid over award rates than are those in workplaces with lower levels of peripheral employment.

Callus et al. observe that over award payments are much more prevalent in some parts of industry than others (1991: 42-4). Similarly, different patterns of relative pay rates seem likely to exist in different parts of industry. Generation of correlation matrices of OAWRD and PAYLEV by SIZE, SECTORA and SECTORB confirms this possibility. They show noteworthy correlations between OAWRD and MANUFA (r=0.36 t=0.0001), COMSER (r=-0.36 t=0.0001) and SECTORB (r=0.43 t=0.0001), and between PAYLEV and SECTORB (r=0.32, t=0.0001).

The generation of a series of three-way cross-tabulations showed that the pattern involving PAYLEV and NUMFLEX2 held in both the public and private sectors. The cross-tabulations involving OAWRD show that the pattern holds more clearly in some classes of workplaces than others, but that the association between peripheral work and lack of over award payments holds across different industries and between the public and private sector. As an illustration, Table 3.24 presents the results of the cross-tabulation of SECTORB by NUMFLEX2 by OAWRD.

TABLE 3.24: CORE/PERIPHERY (NUMFLEX2) BY HIGH LEVELS OF STAFF PAID OVER THE AWARD RATE ("HIGH" OAWRD) BY PUBLIC/PRIVATE SECTOR (SECTORB) (% OF WORKPLACES WITH HIGH LEVELS OF OVERAWARD PAYMENTS IN THAT SECTOR/N)

		SECTOR				
		PUBLIC SECTOR	PRIVATE SECTOR			
	LOW	17.0	59.6			
	(100)	175	1194			
CORE/	MEDIUM	5.3	53.8			
PERIPHERY	(101-199)	334	4666			
	HIGH	8.0	18.3			
	(200-799)	251	1684			

The percentage of workplaces with high incidence of over award payments is much lower in the public sector than in the private sector. Nonetheless the general pattern holds, with a considerably larger proportion of workplaces with 100 per cent full-time permanent employees having high rates of over award payments than those with high proportions of peripheral workers.

This analysis suggests that the association between peripheral work and over award pay is not simply a reflection of the fact that peripheral jobs are more prevalent in the same industries which tend not to favour over award payments. Rather, it is consistent with the claim that workers in irregular employment are less likely to receive such payments regardless of the location of their jobs. Since over award payments are common amongst workplaces covered by the AWIRS, this finding can be interpreted as providing support for the claim that peripheral workers tend to be disadvantaged in terms of pay outcomes.

Turning to the issue of employment security, the very nature of peripheral work suggests that it will be associated with a lack of such security. EMPSEC is a dummy variable which indicates whether security of employment is offered as a condition of employment. That a negative association exists between peripheral work and employment security is illustrated by Table 3.25, which is a crosstabulation of NUMFLEX2 by EMPSEC.

TABLE 3.25: CORE/PERIPHERY (NUMFLEX2) BY SECURITY OF EMPLOYMENT (EMPSEC) (ROW %/N).

		EMPLOYMENT SECURITY			
		SECURITY	LACK OF SECURITY	TOTAL	
	LOW (100)	71.9	28.1	100.0	
		2178	853	3031	
CORE/	MEDIUM (101-199)	72.3	27.7	100.0	
PERIPHERY		10855	4167	15022	
	HIGH (200-799)	54.7	45.3	100.0	
		6748	5593	12341	

The table shows that, regardless of the score for NUMFLEX2, more than half of workplaces offer their employees employment security. However, a disproportionately large percentage of those workplaces with high levels of peripheral employment do not offer security of employment to workers.

As was the case for over award payments, it seems quite possible that the fact that workplaces which rate highly on NUMFLEX2 also rate highly on EMPSEC may be a function of their position in particular sectors or industry divisions. To test this, correlations of EMPSEC and the three controls (SECTORA, SECTORB and SIZE) were generated. The only noteworthy and statistically significant correlation was between EMPSEC and SECTORB (r=0.29, t=0.0001). Analysis of a three-way cross-tabulation of SECTORB by NUMFLEX2 by EMPSEC shows that the pattern of higher levels of peripheral employment associated with lack of employment security holds in the public sector and private sectors, although it is noteworthy that the association is somewhat stronger in the private sector. Overall, a considerably greater percentage of those workplaces with high levels of peripheral employment, than of those with low or medium levels of peripheral employment, do not offer job security. The analysis clearly demonstrates that there is an association between peripheral work and lack of employment security, even when this relevant intervening variable is controlled for.

The AWIRS data do not allow the construction of an indicator of career prospects or paths. However, the two training variables used in the previous sub-section can be substituted. Cross-tabulations of NUMFLEX2 with each of the training variables show that there is a negative association between peripheral employment and training, although it is less marked in the case of TRAIN2. To illustrate the nature

of the relationship between peripheral work and training, the results for the cross-tabulation of NUMFLEX2 by TRAIN1 are presented as Table 3.26.

TABLE 3.26: CORE/PERIPHERY (NUMFLEX2) BY PROVISION OF STUDY ASSISTANCE (TRAIN1) (ROW %/N)

		PROVISION OF STUDY ASSISTANCE			
		NO ASSISTANCE	ASSISTANCE	TOTAL	
	LOW (100)	38.5	61.5	100.0	
		1167	1864	3031	
CORE/	MEDIUM (101-199)	34.2	65.8	100.0	
PERIPHERY		5128	9882	15010	
	HIGH (200-799)	56.1	43.9	100.0	
		6908	5415	12323	

The table shows that, while there is a similar amount of provision of assistance in workplaces with low and medium levels of peripheral employment, in workplaces with high levels of peripheral employment there is markedly less assistance provided. The associations demonstrated by the cross-tabulations are quite consistent with the claim that peripheral workers are less likely to receive training than are other workers. As noted in the first sub-section, there were no noteworthy and statistically significant correlations between the training variables and the controls. Therefore, in this instance there was no necessity to generate three-way cross-tabulations.

The fourth phenomenon to be examined is worker autonomy. The association between peripheral work and autonomy is illustrated by the cross-tabulation of NUMFLEX2 by AUT1 presented in Table 3.27.

The table shows that less than 30 per cent of those workplaces with high levels of peripheral employment had high levels of worker autonomy. However, over 40 per cent of those with low peripheral employment (a score of 100 on NUMFLEX2) had high levels of worker autonomy.

TABLE 3.27: CORE/PERIPHERY (NUMFLEX2) BY WORKER CONTROL OF HOW WORK IS PERFORMED (AUT1) (ROW %/N)

		WORKER CONTROL			
		LOW (0-6)	MEDIUM (7-9)	HIGH (10-15)	TOTAL
	LOW (100)	27.5 829	30.4 919	42.1 1271	100.0 3018
CORE/ PERIPHERY	MEDIUM (101-199)	29.5 4411	35.3 5288	35.3 5279	100.0 14978
	HIGH (200-799)	39.0 4810	32.1 3953	28.9 3560	100.0 12323

NB Discrepancies in totals are due to rounding.

A similar pattern emerged when NUMFLEX2 was cross-tabulated with the second measure of autonomy, AUT2. While nearly half (46.2 per cent) of those workplaces with 100 per cent full-time permanent staff had high levels of worker input to change, less than one third (31.2 per cent) of those with high levels of peripheral employment (NUMFLEX2 = 200-799) rated highly on AUT2.

As discussed in the previous sub-section, the only correlation involving the autonomy variables and the controls was that between AUT1 and COMSER (r=0.26, t=0.0001). Therefore, a three-way cross-tabulation of NUMFLEX2 by AUT1 by COMSER was generated. The pattern shown in Table 3.26 above fails to hold in the Community Services (COMSER) division, where almost sixty per cent (57.3) of those workplaces with high levels of peripheral employment rated worker autonomy as high. This suggests that the association should be treated with caution in drawing any conclusions, since it does not apply universally.

Overall, the simple bivariate and multivariate analysis presented above is very clearly supportive of the claim that workers in peripheral jobs are likely to fare less well than other workers in terms of pay rates, job security, training and autonomy. This is quite consistent with the claim that those in peripheral jobs can be seen as in significant ways disadvantaged. The next issue to be addressed concerns the claim that peripheral jobs tend to be filled more often by women than by men, and that the negative consequences thus fall disproportionately upon female workers.

The level of female employment is captured by FEMWORK, which is a measure of the percentage of female employees in a workplace. The relationship between the existence of peripheral jobs and the employment of female workers is illustrated by Table 3.28. The table shows that only around 6 per cent of those workplaces which have 100 per cent full-time permanent employees ("low" on NUMFLEX2) have more than 60 per cent female employees. However, over 40 per cent of workplaces

with a high level of peripheralisation have over 60 per cent female employees. The table shows a very clear pattern. Workplaces which have high levels of peripheral employment also tend to fill a high proportion of jobs with female workers.

TABLE 3.28: CORE/PERIPHERY (NUMFLEX2) BY PERCENTAGE OF FEMALE EMPLOYMENT (FEMWORK) (ROW %/N)

		FEMALE EMPLOYMENT			
		LOW (0-20%)	MEDIUM (21-60%)	HIGH (61-100%)	TOTAL
	LOW (100)	70.4 2132	24.0 729	5.6 170	100.0 3031
CORE/ PERIPHERY	MEDIUM (101-199)	35.5 5324	42.1 6322	22.5 3372	100.0 15019
	HIGH (200-799)	17.2 2125	40.4 4982	42.4 5229	100.0 12337

NB Discrepancies in totals are due to rounding.

Notable and statistically significant correlations were found between FEMWORK and several of the industry dummy variables (MANUFA: r=-0.29, t=0.0001; CONSTR: r=-0.25, t=0.0001; and COMSER: r=0.44, t=0.0001), but not between FEMWORK and SECTORB or SIZE. Therefore, three-way cross-tabulations of these industry variables by NUMFLEX2 by FEMWORK were generated.

Examination of the cross-tabulations indicates that the association between peripheral work and female employment levels is clearer in some classes of workplaces than in others. However, in all cases the positive association remained when the control variables were included.

The analysis presented here provides convincing support for the proposition that there is a strong positive association between the use of part-time, casual and other peripheral employees and the employment of females. The relationship holds even when relevant intervening variables are introduced. On this basis, the analysis of the AWIRS data is clearly consistent with the findings of previous studies which have argued that women are over-represented among peripheral workers.

It has now been shown that there is an association between peripheral employment and a range of negative outcomes for workers. It has also been shown that peripheral employment is associated with female employment. The data are consistent with the claim that the negative consequences of peripheral employment fall disproportionately upon women. This is much more consistent with the pessimism of the neo-managerialist and neo-Fordist schools than the optimism of post-Fordist theory.

THE IMPLICATIONS OF THE ANALYSIS OF THE AWIRS DATA

The analysis in this chapter has allowed an assessment to be made of whether any of the three models is an accurate description of key features of industry. The analysis led to the conclusion that, at the level of the sample as a whole and, by extrapolation, the bulk of Australian industry, the neo-managerialist, neo-Fordist and post-Fordist models are not accurate descriptions of key phenomena. This suggested the rejection of the models as descriptive tools, but before such a step could be taken it was necessary to ascertain whether any of the models captured aspects of production in particular parts of industry.

This was done by regrouping the variables and cross-tabulating them by workplace size, sector and industry division, which allowed an assessment to be made of two things. The first was whether any model was more like any class of workplace than other classes. It was shown that indeed some sorts of workplaces were better captured by the different models than others. This finding led to the conclusion that if one were interested in the characteristics and outcomes of particular forms of flexibility, then it would be fruitful to target particular industries. This has important implications for the research strategy to be pursued in Chapter Four, and these will be discussed towards the end of this section. The second thing which was assessed was whether any model was a good description of any class of workplace. The analysis clearly indicated that no model very closely matched workplaces of a particular size, in either the public or private sector, or in any industry division. This led to the conclusion that not only were the models poor descriptions of workplaces in the AWIRS sample as a whole, but that they were also poor descriptions of reality in particular parts of industry.

The implication of this is that insofar as the models are claimed to be descriptions of reality, they ought to be rejected. Such a rejection cannot be made globally on the basis of the AWIRS data, but since none of the models captures the reality of the organisation of production in Australia in the late twentieth century it is quite reasonable to reject them in this specific context. This is a very significant finding, since it resolves one of the major research problems of the paper. It provides strong evidence that those authors who have claimed that any of the models adequately grasps the nature of flexibility in Australia have been mistaken. The models have been subjected to empirical scrutiny and found wanting.

Nonetheless, a rejection of the models as descriptions of reality is only a part of the assessment of their utility. The other task of the chapter was to ascertain whether the models were useful devices for apprehending the outcomes of different forms of flexibility, and therefore whether they were useful guides to action.

The first, and perhaps most obvious, conclusion to be made concerning outcomes is that the analysis of the AWIRS data has demonstrated that associations do actually exist between flexibility and other phenomena. Much of the previously available evidence relevant to the debates about flexibility has been rather "blunt" in that it has involved noting that particular forms of flexibility at an industry level co-existed with other phenomena, and concluding that this was not inconsistent with an association. Alternatively, it has relied on case study evidence which showed associations to exist in isolated cases, which may well have been atypical of the bulk of workplaces. The analysis of the AWIRS data has overcome both these deficiencies. It has shown that workplaces which are more flexible than others also tend to display a range of other features relevant to the paper. This effectively

dispenses with the possibility that the apparent associations between flexibility and other phenomena are illusory, or that they only exist in a small group of aberrant workplaces. Flexibility is associated with a range of outcomes which seem very likely to have an impact on the relative power of capital and labour and the experience of work. This is of considerable theoretical significance in that it suggests that, in terms of the politics of production, flexibility matters.

The next conclusion to be drawn is that different forms of flexibility are associated with different sorts of outcomes. Therefore, it makes little sense to argue that flexibility, as such, is a good or bad thing for labour. The analysis has allowed much greater precision than was previously possible in identifying which forms of flexibility are associated with which sorts of outcomes. By allowing an assessment of associations between a range of forms of flexibility and a range of outcomes, the analysis has made it possible to make some judgements about the likely impact of the growth of different forms of flexibility in Australian industry.

Dealing first with labour process flexibility, the analysis has shown that higher levels of peripheral employment (NUMFLEX2) are overwhelmingly associated with negative outcomes for labour. Specifically, there are negative associations between this form of flexibility and: pay levels; employment security; skill formation; and worker autonomy (although it should be noted that this latter association may be a sectoral effect). There is also a clear association between higher levels of peripheral work and higher levels of employment of female workers, suggesting that women are likely to be disproportionately exposed to the negative consequences of peripheral work. These findings lead to a very clear conclusion. That is, peripheral work is overwhelmingly associated with negative outcomes for labour.

Conversely, there is a general tendency for labour process flexibility to be associated with more positive outcomes for labour, although not exclusively. Forms of work organisation characteristic of functionally flexible workplaces (FUNFLEX) were positively associated with training provision, worker autonomy, worker input to decisions concerning the workplace, and the presence of trade unions. Procedural flexibility in the form of formal consultative mechanisms (PRCFLEX) was also positively associated with the same phenomena. Flexibility in changing output (PRDFLEX) was not associated with either measure of autonomy, but it was positively associated with training.

The exception to this tendency for labour process flexibility to be associated with positive outcomes for labour involved technical-organisational flexibility (TECFLEX). The presence of computerised technologies and associated management techniques was negatively associated with both measures of training and both measures of worker autonomy, although in the case of worker control over the execution of tasks the association appears likely to be an industry effect. Technical-organisational flexibility was also negatively associated with the presence of unions and the density of membership, but this relationship only held in the private sector and should therefore be treated with caution. Nonetheless, to the extent that technical-organisational flexibility is associated with the outcomes of relevance to this project, the associations are exclusively negative.

The analysis of relationships between flexibility and other phenomena suggests that each of the three theoretical models has utility in explaining relationships and predicting outcomes, but that none is unequivocally supported by the data. However, there are facets of the models which cannot adequately be assessed using

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the AWIRS data. Thus, it is possible to provide a preliminary assessment of the models here, and to highlight the problematic aspects of each one. A final assessment must await the analysis in the next chapter.

The post-Fordist model is most obviously flawed in failing adequately to deal with the implications of numerical flexibility, most notably in the form of core/periphery strategies. This has two important implications. The first is that the post-Fordist account of labour market flexibility is theoretically flawed. The second, which follows from this, is that action based on its prescriptions is unlikely to lead to the predicted outcomes.

In contrast, the post-Fordist account of labour process flexibility would appear to receive support from the analysis of the AWIRS data. Of the forms of labour process flexibility dealt with in the chapter, three were fairly consistently associated with positive outcomes for labour, while the fourth was not. On the evidence presented so far, there is little choice but to accept the post-Fordist claim that functional, procedural and product flexibility tend to be associated with positive outcomes.

However, this acceptance must be very much provisional. This is because what remains problematic is the question of whether the benefits of these forms of flexibility accrue equitably across workplaces. The post-Fordist model does not apprehend the concept of core/periphery structures, and appears to assume that any benefits associated with flexibility will accrue to all workers. The AWIRS data do not allow an assessment to be made of whether this is the case. Therefore, the theoretical claim that labour process flexibility tends to be good for labour can stand for the present, and be accepted as a valuable insight provided by post-Fordist theory.

If the general association between labour process flexibility and positive outcomes is to be accepted for the present, this still leaves unanswered the question of why technical-organisational flexibility appears to be associated with negative outcomes. Perhaps the most fundamental claim of post-Fordist theory is that the introduction of computerised production and associated forms of organisation are likely to be associated with a skilled, autonomous and empowered workforce. The evidence is that in Australia this is not the case. Rather, the analysis of the AWIRS data is consistent with such flexibility being associated with the disempowerment of workers. This finding suggests that the optimism of post-Fordism has been misplaced.

While a full understanding of why this is so cannot be reached using the AWIRS data, an obvious suggestion is that, contrary to post-Fordist claims, forms of labour process flexibility which have the potential to enhance management control will tend to be used for this purpose. This line of argument is reinforced by the fact that two of the three other forms of labour process flexibility discussed in this chapter necessarily involve some degree of worker input. Thus, it may be the case that post-Fordist theory adopts too deterministic a view of the role of computerised technologies and associated forms of organisation. A final issue concerning this form of flexibility is that it seems entirely possible that the impact of technologies will be felt quite differently in different parts of the labour process, and that the negative effects may be disproportionately associated with peripheral workers. This cannot be determined using the AWIRS data, but if it can be shown in due course to be the case then it will further strengthen the argument, prefigured above, that

perhaps the most fundamental flaw in post-Fordist theory is that it fails to take into account structures of inequality in the workplace and assumes a uniformity in the impact of different forms of flexibility.

On balance it seems reasonable to accept, rather provisionally, that there are some insights from post-Fordist theory which ought to be retained based on the available evidence. While the theory appears to have some major flaws it cannot yet be rejected in its entirety.

The neo-managerialist account overcomes the major flaw of post-Fordist theory, since it apprehends the implications of the division of workers into core and peripheral groups. It predicts negative outcomes for those in the periphery. Further, this school contends that labour process flexibility will have generally positive outcomes, but that these will be restricted to workers in the core. These central contentions of the theory are borne out by the analysis in this chapter. As already noted, it is not possible as yet to ascertain whether the positive outcomes shown by the data are restricted to the core, but this possibility certainly cannot be rejected.

Further, even though this theoretical school provides useful insights, its utility is limited. Firstly, the forms of flexibility which comprise the neo-managerialist model are rather too few, which limits its descriptive and analytical capacities. Secondly, it tends to be theoretically underdeveloped in not explicitly addressing the underlying dynamics of capitalist production and how they play a role in influencing both the nature of flexibility and its outcomes, which also limits its explanatory power. Moreover, the aspects of neo-managerialist theory which are useful, both in terms of forms of flexibility and their outcomes, are largely encompassed by neo-Fordist theory which provides a model which is theoretically richer and encompasses a wider range of manifestations of flexibility. The conclusion that can be drawn from this is that neo-managerialist theory does indeed provide some useful insights, and to this extent is worthy of retention, but that neo-Fordist theory may be a superior predictor of outcomes and thereby supersede neo-managerialism.

In most respects the latter model appears to be a useful predictor of outcomes. Of particular note is the fact that the claims of this school, that computerised technologies and associated management techniques will likely be introduced in ways which are detrimental to labour, are borne out by the data. Neither of the other schools apprehends this association. On balance this model seems superior to the neo-managerialist model.

Each of the three schools can be regarded as having a degree of analytical utility. However, none of them represents a sufficiently sound basis upon which to formulate policy, since none of them appears to be sufficiently robust to predict the relationships between all of the relevant variables. To attempt to generate a better theorisation of flexibility requires an understanding of how it is that the theories fail to adequately predict relationships. This in turn requires an understanding of the processes by which the associations discovered here emerge. This will be the task of the next chapter.

As well as the substantive and theoretical conclusions detailed above, the analysis in this chapter has led to some important methodological conclusions which inform the chapter which follows. The analysis of the AWIRS data has made possible an assessment of the extent to which any of the models captures reality, and the extent to which particular forms of flexibility are associated with particular outcomes.

Within the limitations of the data, it has allowed some firm conclusions to be reached concerning what happens in Australian industry.

However, there are two things which cannot be done using the AWIRS data. Firstly, it cannot be used to assess the question of causality or its direction. In dealing with relationships between flexibility and outcomes, a necessary assumption has been that phenomena such as autonomy, job security and training are functions of flexibility. To the extent that associations are identified, it is possible to argue that the data are consistent with causality operating in this way. However, it is equally consistent with flexibility being a function of the phenomena identified here as outcomes. It seems unlikely that the relationships between flexibility and the other phenomena being considered are unidirectional. Therefore, the AWIRS data are inadequate in this regard. The second thing that the AWIRS data do not show is how and why the associations between flexibility and other phenomena emerge. As an analytical tool, the AWIRS dataset is too blunt to allow analysis of the processes by which the relationships occur at a workplace level. Thus, while it is now possible to say what happens in workplaces where particular forms of flexibility are present, it is not possible to say how and why it happens. To do so requires much more detailed information than is available from AWIRS.

Resource constraints make it impossible to gather such detailed data from a sample of workplaces representative of Australian industry as a whole. Therefore, it is necessary to make a decision about how to select a narrow range of workplaces which can be examined in some detail as a means of assessing processes leading to the relationships identified in this chapter. The analysis in the first half of the chapter indicated that the Finance, Business and Property Services sector tended consistently to rate relatively highly on a wider range of measures of flexibility than did any other sector. Workplaces in this division tend to fall disproportionately in the category "high" for seven of the eleven variables which collectively constitute the three models. This suggests that if one were seeking to locate a single industry division in which one could expect to find relatively high levels of as many forms of flexibility as possible, this sector would be worthy of attention. Further, while size was relatively unimportant, private sector workplaces tended to rate highly on marginally more of the variables. Therefore, the analysis in this chapter points to private sector, Finance, Business and Property Services workplaces as being the most useful class of workplaces to be subjected to more detailed scrutiny.

By examining the organisation of production in workplaces in this sector and industry division, the "how" and "why" questions which remain to be answered ought to be illuminated. Chapter Four will provide an explanation of how workplaces in this segment of industry were subjected to scrutiny, and of the implications of this analysis for the theoretical and practical problems which remain to be answered.

4. A Case Study of Flexibility in the Finance Industry

To generate the data presented in this chapter, interviews were conducted with managerial staff in private sector enterprises in the Australian Standard Industrial Classification (ASIC) Finance, Property and Business Services Division (hereafter this label will be used interchangeably with "the finance industry"). Specifically, the survey deals with the organisation of work in law and accounting firms. The aim of the interviews was not to make sense of developments in this division out of interest in it per se, but rather to use this division as a means to make sense of the specific relationships involving flexibility, which appear to exist throughout Australian industry.

As suggested by the preceding discussion, the specific questions to be addressed in this chapter concern why and how relationships come to exist, rather than whether they do. The questions can be divided into two categories. The first concerns the reasons that labour process flexibility, with the exception of technical-organisational flexibility, is positively associated with autonomy and skill. The second category concerns the issues of why and how peripheral work is associated with negative conditions and why women are over-represented among peripheral workers. In addition, the chapter will provide more detail about the quality and character of the phenomena under consideration.

The analysis in Chapter Three showed that some of the apparent relationships between flexibility and other phenomena seemed to be sectoral or industry effects. A decision was made that, since the aim of the paper is to produce generally applicable conclusions about flexibility, such relationships would be excluded from consideration in this chapter. Therefore, only relationships in which there were industry wide associations between at least some of the relevant variables will be considered here.

In dealing with these questions, the chapter will be divided into six sections. Section One explains the decision to focus on the finance industry. Section Two draws upon existing Australian studies of this industry, in an attempt to elucidate the research questions, and to identify any factors specific to the industry which ought to be considered when dealing with them. Section Three details the methods employed in selecting workplaces to be surveyed, administering the survey and analysing the results. In the fourth section the results are presented. Section Five provides a

discussion of the implications of the findings in terms of the broader themes that have been developed in this paper.

THE CHOICE OF PRIVATE SECTOR FINANCE, PROPERTY AND BUSINESS SERVICES WORKPLACES

Having decided upon the need to collect qualitative data, a choice had to be made as to the balance between covering as wide a range of workplaces as possible and collecting the most detailed information possible. It was decided that the needs of the chapter would best be served by narrowing the coverage of the survey and concentrating on maximising the detail of the information gathered, even though this might be at the expense of the representativeness of the findings. Having made the decision to narrow the coverage of the survey, it was necessary to employ a systematic selection process which would identify the parts of industry most likely to produce useful information.

The analysis of the AWIRS data was used to select the parts of industry to be examined. It was found that, while no class of workplaces was very well captured by any of the models, different classes exhibited different patterns of flexibility. In particular, while size appeared not to be a useful way to differentiate workplaces, it was found that workplaces in the private sector rated highly on more of the measures of flexibility than did public sector workplaces, and that workplaces in the Finance, Property and Business Services divisions rated highly on more of the measures of flexibility than did workplaces in other industry divisions.

Since the concern of the paper is with associations between flexibility and other outcomes, it makes sense to seek more detailed information by examining workplaces which exhibit a relatively high degree of flexibility. Consequently, it was decided that the survey should collect information about private sector workplaces in the Finance, Property and Business Services division of the ASIC system. Before discussing the method which was employed to select the specific workplaces which were surveyed, and the way in which data were collected and analysed, it is useful briefly to examine available Australian literature on this industry division as a means to find any evidence which sheds light on the research questions.

PREVIOUS AUSTRALIAN STUDIES OF THE FINANCE INDUSTRY

While there has been considerable work done on employment and industrial relations in the finance industry in Australia, it has dealt mostly with banking or insurance (see for example: Bowles and Lewis, 1988; Deery, 1992; Dufty et al. 1987; Game and Pringle, 1983; Griffin, 1984; Jureidini, 1992; Manning, 1985, 1990; Markey, 1984, 1987; Probert, 1992; and Weston and Williams, 1988). There is very little Australian literature which deals specifically with flexibility in the finance industry, a recent and notable exception being Junor and Barlow (1992). There is no work which deals with flexibility in law and accounting firms, and virtually none which deals with any issues relating to clerical employment in this part of industry, although it should be noted that Probert (1992) uses some data from a law firm in her wider study of clerical employment.

Nonetheless, there is value in examining briefly the existing studies of the finance industry. The rationale for this is that they may provide some preliminary explanations of the relationships under consideration, which can be built upon using the survey data. Further, previous studies may identify some features of the finance industry which appear to play a role in leading to particular associations. Additionally, it will allow some assessment of the extent to which the law and accounting firms examined in this study differ from other parts of the finance industry. Therefore, this section will examine existing studies which elucidate the relationships between labour market flexibility and inequality, and labour process flexibility, skill and autonomy, in the Australian finance industry.

Labour Process Flexibility, Skill and Autonomy

Two recent case studies undertaken in the Australian finance industry are useful in terms of elucidating the positive associations involving functional and procedural flexibility and product innovation on one hand, and skill and autonomy on the other. Mathews' (1991) study of Colonial Mutual Life Assurance Society Ltd (CML), an Australian insurance company, and Dunoon and Mathews' (1991) study of Westpac bank, both provide insights to the nature of the relationships between labour process flexibility, skill and autonomy.

Both studies argue that restructuring in these firms has been driven chiefly by increased competition in the industry, and a realisation that the appropriate response is to increase product innovation and responsiveness to customers' needs. Dunoon and Mathews claim that "there has been a wave of 'product innovation' which has forced companies to change their conservative ways or perish" (1991: 5). The banking and insurance industries have been characterised by managerial cautiousness, reflected in centralisation of decision making and control, and by a high degree of functional division of labour. However, the authors argue, this approach to the organisation of production has become counterproductive. This is reflected in declining efficiency, and the ability to be competitive now requires "a highly skilled, flexible and motivated workforce attuned to the needs of customers." (Dunoon and Mathews 1991: 9). The flexibility strategies introduced by these firms have apparently had a number of important effects in terms of autonomy and skill.

Firstly, product innovation in the form of an increasingly wide range of financial services requires that staff have the necessary skills to deal with a range of products (provided that individual staff are to be involved in administering a range of such services). That is, they must be familiar with the nature of the products, and with how they can be combined to meet customer needs. This provides some indication of the way in which the association between product innovation and skill, identified in the previous chapter, may arise. It seems possible that organisations which seek to foster this sort of product innovation will be more likely to concentrate on the provision of training than organisations which do not.

Secondly, the most effective way to be responsive to customer needs is said to have been to increase functional flexibility. Mathews argues that "a combination of task integration and teamwork [was the response to] declining staff morale and efficiency evident in the 'factory-like' functional division of labour that prevailed at CM (and at most other insurance companies) in the late 1980s." (1991: 2-5). Self-managing teams were introduced as a means to allow a single unit to handle all

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aspects of dealing with a customer rather than having to refer different elements of the operation to different sections of the company. The result has been a situation where a small group of workers now deals with a wide range of tasks associated with an equally wide range of services. This has led to the need for training in new skills. The increased importance of skill is being reflected in an emphasis on skills as determinants of pay rates and career advancement (1991: 31-4). Further, because the teams now deal with the full range of tasks associated with managing an insurance package for a customer, rather than having to refer portions of it to other parts of the organisation, control over the production process is enhanced.

The third relationship of interest here is that between procedural flexibility, autonomy and skill. Mathews discusses the use of planning meetings at CML as a means for the work teams to make decisions about introducing or changing procedures and argues that: "Traditional supervision, in the form of 'command and control' functions, has been dispensed with...most of the decisions regarding allocation of tasks and personnel matters...are now self-administered by the team members" (1991: 21). It is not clear how procedural flexibility is linked to skill in this instance, although it may be the case that dealing with decisions at a local level requires workers to have greater knowledge of the organisation, its products and its procedures than would be required if decisions were made at a higher level and handed down.

However, the positive scenario presented here requires qualification. Despite their optimistic stance, the authors acknowledge that the positive associations are not as clear and unproblematic as might initially appear to be the case. Both the extent of flexibility, and the degree to which it is associated with positive outcomes for workers, would appear to be limited by the conservative and unitarist management approach characteristic of the finance industry. Dunoon and Mathews note that among Australian banks Westpac is noteworthy for its emphasis on training and skills, but that even in this firm there is a belief among senior managers that training is a short term cost rather than a long term investment (1991: 24). If this belief is manifested in practice as a reluctance to make skill formation central to restructuring efforts, then it seems unlikely that flexibility will be associated with higher skill levels in the longer term. Similarly, the authors note that a unitary approach to management in Westpac has restricted moves to greater worker control and autonomy (Dunoon and Mathews 1991: 30). Mathews argues that during the introduction phase of team-based work: "The organisational environment at CML would not have allowed such a radical step as genuine staff consultation..." (1991: 13).

The second qualification which must be made is that the apparent motivation for managers allowing enhanced skill and autonomy is that it is profitable to do so. In this sense, management appears willing to relinquish some control over production and provide some skill enhancement, to the extent that this enhances workplace performance. This is hardly surprising. However, it suggests that there are clear limits to the degree of autonomy and training likely. If it were no longer perceived by management as productive, presumably this strategy would cease to be pursued. In conjunction with the limits set by the managerial approach characteristic of the finance industry, this suggests that the changes noted in the case studies reported here should not be regarded as indicative of a wholesale transformation of work in the firms examined.

Discussion will now turn to the issue of the negative associations involving technical-organisational flexibility, skill and autonomy. The available accounts raise two main issues which are useful in focussing the analysis of the survey data. The first is that the ways in which the technologies are used, and thus their specific relationships with skill, depend very much on the organisational environment in which they are used. Probert, in her discussion of new technologies and clerical work, argues that:

Rather than the technology itself having any determinate impact on the labour process, it appears to be the prior pattern of work organisation that is the key factor. New technology tends to reinforce pre-existing patterns of work organisation rather than imposing new ones (1992: 446).

Biddington et al. (1989: 59) and Dunoon and Mathews (1991: 7) suggest that a crucial determinant of the impact of computerised systems is the extent to which management approaches tend to be participative or unitary. It has already been argued that management in the finance sector is characterised by a strong assertion of managerial prerogative and a rejection of worker participation. Therefore, it is hardly surprising that "...the strategies adopted by management in the insurance and banking industries in relation to the introduction of new technologies were similar...the implications of technology was seen as an issue to be determined solely by management" (Hill et al. 1986: 51).

The second point concerns the specific ways in which technological systems have led to a reduction in the need for skilled workers. Studies of the finance industry suggest that the negative association with skill arises chiefly because functions which previously were performed manually and mentally have been built into computerised systems. For example, Biddington et al. (1989: 25), argue that in the insurance industry many operations which traditionally required considerable skills (for example the preparation of tables of risks and the calculation of premiums) have been computerised, and the skills largely made redundant. Similarly, Alexander and Frank argue that in banking "...micro-electronic technology has automated most of the accounting and data processing functions, further streamlining jobs in those areas into basic keyboard functions" (1990: 12). Manning cites an official of the ABEU as arguing that while automation may have removed the need for a range of tedious jobs such as balancing ledgers, it has often simply replaced them with other tedious jobs like data entry and has led to specialisation of tasks so that workers concentrate on a single task rather than performing a variety of jobs and learning a variety of skills (1990: 342).

A noteworthy claim made by Biddington et al. is that new technologies have allowed the inbuilding of supervision to computerised systems via the use of standardised procedures and monitoring of output. Simultaneously, this has removed the need for middle level supervisory positions, many of which have been dispensed with (1989: 26). The result has been an apparent reduction in levels of supervision. However, because the supervisory functions are built into machines, the lack of overt supervision goes hand in hand with low levels of worker control over how tasks are performed and low need for skills. The picture which emerges is that the impact of technological change reflects the existing pattern of management and work organisation. In the finance industry there is a tendency for management

to seek to enhance control and cut costs. This is reflected in the utilisation of technologies in ways which inbuild functions, thereby removing to some extent the need for skilled workers, and enhancing supervision.

Irregular Employment and Inequality

The available studies suggest a number of points which are useful in making sense of the associations involving irregular employment. In terms of the over-representation of women in irregular work, the first point which emerges is that there is a perception present in the finance industry, as in other parts of industry, that women are not serious career employees to the same extent as men. A number of studies of the finance industry suggest that women workers in general experience conditions inferior to those of male workers (see for example: Probert, 1992; and Probert and Wilson, 1993). Manning (1990: 338-9) argues that traditionally women in banking have been employed to do menial work which does not lead to a career. This has allowed men to avoid such work, with the effect that the careers of males have come at the expense of females. This argument is also made by Game and Pringle (1986: 278).

The failure to regard women as career employees reflects stereotypical views, both about the sorts of work appropriate for women, and about the alleged conflict between motherhood and paid employment. It is widely assumed that the primary concern of women is with their husbands and children, rather than with a career, and that the former will take precedence (Probert 1992: 450-1). Manning refers to the "well-worn sexist beliefs, such as women's supposedly superior ability with their hands and greater patience with routine tasks" and a reluctance to offer women careers because "they cannot be relied upon to stay - they will go off to have babies" (1985: 56). Thus, the second point which emerges is that this view of women leads to an assumption that there is a fit between women and irregular forms of employment, since these jobs supposedly allow female workers to carry out their family duties. If this view is current among employers and employees then it would be unsurprising if it became to some extent a self-fulfilling prophecy in terms both of management decisions about hiring and deploying labour and in workers' choices about jobs.

In explaining why irregular employment is consistently associated with less desirable conditions than is permanent full-time work, two issues emerge from the literature. The first is precisely that women are over-represented in such employment. If irregular work is seen as "womens' work" and if stereotypical notions are prevalent in industry which hold that women are not serious career employees and are suited to particular tasks, it is hardly surprising that irregular jobs should be characterised by the relatively poor conditions associated with "female" jobs more generally.

Indeed, this is the thrust of Lever-Tracy's account of part-time work in the banking industry (1988). She argues that it is entirely possible for irregular employment to be associated with the same conditions enjoyed by permanent, full-time workers. However, that in practice this is not the case reflects the fact that peripheral work tends to be done by women. Junor et al. (1993) suggest that while part-time workers are central to the productive and efficient operation of most Australian banks their contribution is systematically undervalued, because they are predominantly women, and they are accordingly afforded relatively inferior

conditions. Similarly, Hill argues that the Australian Bank Officials Association (ABOA) tended, until quite recently, to neglect the needs of women workers, based on a perception that they were inferior to men and not really serious employees (1982: 227-44). This leads to the second issue.

This is that irregular employment in general has been regarded as less central to the finance industry than permanent full-time employment. Alexander and Frank argue that there is a historical perception in banking that irregular workers are not interested in careers, which influences the expectations of managers and of the workers themselves (1990: 24). Junor et al. quote the Branch Manager of a bank who said: "part-timers...don't want promotion, just in it for the pocket money, get in, do their job and go home" (1993: 63). The way in which this sort of view is translated into action which disadvantages irregular employees can be illustrated with reference to the issue of training. Junor et al. argue that:

Whilst senior management in all the major institutions where we interviewed indicated that there were no formal barriers to part-time access to training, de facto barriers have long been acknowledged to exist. In part, this is a logistical problem of time and place, but it is also a problem that the training has to be seen as relevant, a problem that helps lock part-timers into their present jobs....[Part-time workers tend to be denied] training for career paths...[Instead, they receive only] training to do the present job better...What underlies [this] is the failure to see part-time...workers as more than a contingent and 'low skilled' workforce, on whom more serious training and career development would be wasted (Junor et al. 1993: 144-6).

These perceptions of the nature of irregular work appear to have influenced not only management, but also unions, and thus to have militated against an improvement of conditions associated with irregular employment (Alexander and Frank, 1990; Biddington et al. 1989: 53; Lever-Tracy 1987, 1988). Hill (1982: 265) and Lever-Tracy (1987) discuss the way in which banking unions have, in the past, been almost exclusively concerned with opposing the introduction of part-time work (and the displacement of full time jobs) and ensuring that banks did not exceed the quota of such workers under the award, while ignoring the fact that the award disadvantaged these workers in terms of pay rates and increments. Lever-Tracy cites a bank employees union official as saying "because we had a philosophical opposition to part time work, we never did anything about it [the fact that irregular employees were disadvantaged]" (1987: 67).

The preceding discussion suggests that the issues of the over-representation of women in irregular employment and the relatively poor working conditions associated with such jobs cannot in practice be separated. The domestic division of labour, and stereotypical views which both reflect and reinforce the status quo, increase the likelihood that women will be found in irregular employment. The fact that irregular employment is regarded as peripheral, which in part reflects the fact that it is feminised work, has led managers and unions to regard the conditions associated with it as being of secondary importance. Therefore, it makes no sense to consider the issues of irregular employment and gender separately in the finance industry. They are inextricably intertwined.

The only other issue which emerges from consideration of the literature on this part of industry concerns a difficulty associated with the fact that irregular employees are predominantly located in low level occupations characterised by routine tasks. Not only are such occupations associated with poor conditions, but they also by their very nature raise obstacles to improvement. Because such jobs tend to be routine and menial, there is little scope for workers to gain pay increments based on performance or to demonstrate a capacity for more skilled, autonomous or higher level jobs (Alexander and Frank 1990: 25; Burton, 1989). This factor suggests that there are clear structural barriers to individual workers gaining better work or conditions.

Consideration of existing studies of the finance industry has been useful in a number of respects. Firstly, it has shown that available accounts have only a very limited capacity to explain the associations under consideration. This confirms the necessity, and highlights the value, of the survey research which forms the basis of the chapter. Secondly, by providing some partial explanations of the phenomena of interest, the material discussed here gives some guidance in terms of causal processes which may be at work in law and accounting firms and thus helps to focus the analysis of the survey data. Finally, it allows some assessment of the extent to which the law and accounting firms under consideration are typical of the finance sector in general. This is of interest in itself, since there has been so little work done on this part of the industry. It is also useful if one wishes to make a judgement about the extent to which the processes at work in these firms might be characteristic of Australian industry in general.

METHOD

The aim of this section is to explain the methods employed in collecting and analysing the data which form the basis of the chapter. The section will deal first with the reason for choosing to focus on law and accounting workplaces rather than the finance industry in general, or some other part of it. Secondly, it will provide an account of the methods used to select cases, and to gather data. Finally, it will outline the nature of the resulting data, and provide an explanation of the ways in which they contribute to the research project.

Section Two explained the reasons that the finance industry was chosen for the survey. However, having identified that ASIC division, it was still necessary to isolate a particular part or parts of it, since it represented too broad a classification to be covered in its entirety in any detail. The Finance, Property and Business Services division comprises three subdivisions, each of which is divided into a series of groups which are further subdivided into classes. A decision was made to focus on the Legal and Accounting Services group (Group 637 in the ASIC system), which comprises the Legal Services class (Class 6371) and the Accounting Services class (Class 6372). For full details of the ASIC system see ABS (1983).

This decision was made for two reasons. Firstly, it was not possible to conduct a survey of workplaces in all the classes which comprise the division. It would have required resources which were unavailable, and in any case the aim of this chapter is to subject a small number of workplaces to detailed scrutiny rather than a larger number of workplaces to less thorough examination. The second reason to choose this group was that virtually all of the literature in Australia on flexibility in the

finance industry has been concerned with banking and insurance. Therefore, by choosing this group it is possible to generate potentially useful new data on a neglected part of industry.

Having chosen the law and accounting group, it was then necessary to identify appropriate methods to collect data. Initially, two approaches were considered. The first was to carry out a survey of a random sample of workplaces in this part of industry and to collect detailed quantitative data which could then be analysed to further explicate the associations under consideration. The appeal of this approach was that it could be used to ask questions which were specifically designed to capture the incidence of flexibility and other phenomena, whereas the analysis of AWIRS had to rely on using questions which had not been devised specifically for this purpose.

While such an approach would potentially have provided a more detailed understanding of the associations identified using the AWIRS data, it also suffered from a major limitation. As was the case for the analysis presented in the previous chapter, quantitative analysis of this form of data can only ever provide evidence of associations. It cannot explain causal relationships. Since Chapter Three already provides sound evidence of the associations between flexibility and other phenomena, which hold regardless of the size, sector or industry division of the workplace, there seemed little point in seeking to ascertain whether the same relationships held in a particular part of industry by investigating them with an additional survey. Rather, a method needed to be employed which could elucidate the processes by which already known associations came to exist.

An alternative which was also considered was to undertake a small number of very detailed case studies of workplaces in the finance industry. This method has the potential to provide very detailed and comprehensive information concerning the workplaces from which data are gathered, and thus to lend great richness to the analysis. The difficulty with this approach is that, by restricting the study to a very small number of workplaces, the potential to find cases in which the associations of interest to the paper are present is severely constrained. If, for arguments sake, ten workplaces were selected for detailed study, there remained a significant risk that none would exhibit one or more of the associations of interest. Therefore, at the risk of losing the richness of detail which is the great strength of the case study method, a third approach was adopted.

The solution to the limitations of each method was to utilise a methodology somewhere between a random sample survey and case studies. It was decided that by selecting a group of workplaces larger than would be used for case studies, and gathering qualitative data by means of interviews, the shortcomings of each method could largely be overcome. For a recent example of a study which employs a broadly similar approach, see Junor et al. (1993). The specific ways in which this approach was employed, its limitations and the logic which informs the analysis of the resulting data are explained below.

Initially, two limitations were placed on the workplaces which could be chosen from the pool of law and accounting firms in Australia¹. The first was that the survey would be restricted to the Brisbane metropolitan area as a means to minimise time and costs involved in travel. Secondly, the survey was restricted to workplaces which had two or more clerical or support staff. By this is meant staff who are not legal or accounting professionals. The reason for this condition being imposed is that the problems being examined in this paper concern outcomes for labour. Labour is defined for the purposes of this project as comprising those who sell their labour power. Therefore, lawyers or accountants who run their own practices cannot be regarded as falling into this class. Further, the bulk of the literature on flexibility implicitly or explicitly concerns blue collar production workers in manufacturing enterprises. Since this project concerns the service sector it was necessary to concentrate on workers who fulfilled an analogous role. In this sector, workers who undertake administrative duties can be considered the functional equivalent of blue collar production workers. Therefore, while an argument might plausibly be made that employed lawyers or accountants are "labour", they do not fit into the category of labour of chief interest to this project.

With the aim of undertaking about one hundred interviews, a list of 120 law firms and an equal number of accounting firms was compiled by selecting every third firm under the respective headings of "Solicitors" and "Accountants" in the Brisbane "Yellow Pages" telephone directory. As a means to minimise the risk of including in the sample practitioners who employed too few support staff, sole practitioners were excluded on the basis that they were more likely to fall into this category than were partnerships. Sole practices were identified as those firms which appeared from their listed names not to be partnerships or incorporated entities. If a selected firm was a sole practice, then the next alphabetically listed firm was selected, and the process of selecting every third firm was recommenced. Having selected the sample of 240 firms, letters were sent to "The Managing Partner" in the case of accounting firms and "The Administration Partner" in the case of law firms, explaining the nature of the survey, enclosing a copy of a questionnaire and advising that contact would be made by telephone in the near future.

Brief telephone interviews were then conducted to assess the suitability of firms and their willingness to participate in the study. If it was confirmed that the workplace did indeed employ two or more clerical staff, respondents were asked if they would be willing to participate in a detailed face-to-face interview. If the firm did not employ such staff, it was eliminated. From the original list of 240 firms (once those which were unsuitable were eliminated) the management of 40 accounting firms and 39 law firms agreed to take part in the interview. The questionnaire which was administered asked questions about a wide range of issues for the purposes of a larger project of which this paper is a part. Fifteen questions were used to gather the data used in this chapter and the questionnaire was administered to 79 workplaces in the period from November 1992 to February 1993. In all cases the person interviewed was that person with responsibility for the employment and

Since size of workplace was found in Chapter Three not to be an important factor in determining levels of flexibility, there were no size restrictions placed on the firms to be surveyed. The size range in the survey was from two clerical staff to 155 such employees.

management of staff. This was usually the person designated as "Office Manager", "Human Resources Manager" or "Personnel Manager", or the "Staff Partner" or "Managing Partner" in cases where a lawyer or accountant had responsibility.

Early requests to tape interviews were universally rejected by respondents and this strategy was not pursued. Responses were recorded in written form. This method proved adequate since in almost all cases the questions sought and obtained short answers which could easily be recorded without excessive risk of inaccurate transcription. Each interview was conducted at the premises of the firm involved, and took between 30 and 60 minutes.

It must be made very clear that there is no intention of making statistically reliable generalisations about Australian workplaces based on the survey results. To this extent the sampling and selection bias in the group of workplaces is not considered problematic, or indeed even relevant.² However, the selection process explained above was utilised to randomise as far as possible the cases selected. The rationale for this was that in seeking to locate and analyse relationships which have been shown to apply in industry as a whole, and in the absence of any knowledge of whether such relationships were more or less predominant in particular sorts of law and accounting firms, the likelihood of isolating relevant cases would be maximised by randomising the sample. This approach overcame the limitations of a case study methodology which were alluded to earlier.

A potential source of bias which is of concern is the fact that the survey was administered to partners or office managers, rather than employees. It is entirely conceivable that the perceptions and experiences of managers differ significantly from those of clerical staff, with the result that an account of workplace phenomena based on management responses may differ from an account based on worker responses. While this will not necessarily systematically bias the results, the possibility must be considered, and it might be argued that this reduces the utility of the study.

Two rejoinders can be made to this potential criticism. The first is that the paper is concerned with phenomena at the level of the workplace, rather than with the personal experiences of individual workers. To this extent, it is entirely appropriate to seek information about organisational practices from workplace managers. Indeed, it seems unlikely that in many cases workers would be as well equipped as managers to provide details of the employment and work organisation arrangements

The size of the sample means that its representativeness is limited by sampling error. Such a small sample could be expected to lead to sampling error of around plus or minus six to six and a half per cent, at the ninety-five per cent confidence level (De Vaus 1990: 71). The representativeness of the cases selected is also compromised by the fact that those who were willing to participate may differ from those who were not, in ways relevant to the relationships being examined. It is not possible to ascertain the extent to which the bias may have reduced the likelihood of isolating cases which elucidate the relationships of interest here. However, as the analysis in Section Five shows, sufficient instances of relevant associations were identified to make sense of the processes under consideration. This, in conjunction with the fact that there is no attempt to extrapolate from the results to industry in general means that the sampling biases are not problematic.

in a workplace, and to interview managers would appear to be a more fruitful way to gain such data.

Secondly, there would have been logistical difficulties in employing an alternative strategy. The resources were not available to conduct an employee-based survey of a large enough number of workplaces. Further, it was anticipated that there would have been somewhat greater resistance on the part of managers to allowing the individual staff to be interviewed than simply to being interviewed themselves. The strategy employed was considered to be the most effective means to gather information suitable for the project. To the extent that there is the potential for bias arising from the fact that managerial staff were interviewed (and some form of bias would be unavoidable no matter what strategy was adopted) this must simply be acknowledged, and borne in mind when drawing conclusions.

Other than sampling and selection, there is the potential in survey research for bias resulting from the questions, interviewer characteristics and coding or data entry mistakes (Fowler and Mangione, 1990). The latter source is not applicable to this survey, since the data were not quantitatively analysed. However, questions were designed, and interviews conducted, so as to minimise question and interviewer bias⁵.

Having outlined the method by which the data were gathered, the final task for this section is to explain briefly the nature of the data and how it was employed to elucidate the research questions. The AWIRS data have been used to ascertain what associations exist across industry. Therefore, the aim of the analysis here is not to see if the associations also hold across law and accounting workplaces. Rather, it is to concentrate on those instances where the associations appear to be present, and to explore the nature of the associations and the reasons they emerge.

This takes the form of identifying workplaces where particular associations are present, and seeking from the responses clues as to why and how they emerge as well as greater detail concerning the nature of the phenomena involved. If, for example, a particular workplace utilises strategies which are indicative of functional flexibility and if it also appears to have high levels of worker autonomy, then the responses to questions about the two phenomena are examined in the hope of providing detail as to the quality of the respective phenomena as well as elucidating the reasons for the association. Those cases where a particular association or associations are found to be present are examined to ascertain whether there is a general trend, or trends, in the ways that the associations emerge. Quotes from the survey are used to illustrate the trends which emerge in the analysis. In this sense, the quotes presented are selective by design. That is, they are chosen on the basis that they illustrate important aspects of the phenomena under consideration.

It must be made clear what the analysis presented below is able and unable to be used for. While the firms in the survey represent that proportion of a random

The principle source of guidance in minimising these sorts of bias was Standardised Survey Interviewing: Minimising Interviewer Related Error (Fowler and Mangione, 1990). Where applicable, the methods specified by the authors were employed.

sample of suitable workplaces where managers were willing to be interviewed, and to that extent are representative, no attempt is made to draw statistically reliable generalisations from the results. While it is possible that the results are generally applicable, no attempt is made to ensure their applicability, nor to provide a measure of errors arising from sampling or other factors. The only claim made about the applicability of the results is that they shed some light on processes at work in a particular area, and these results provide some indication of the sorts of processes which may be at work more generally. How one chooses to apply the results then becomes a matter for informed judgement, rather than a decision based on statistical probabilities.

Therefore, the data and the ways in which they are used are quite different from those in the previous chapter. While ethnomethodologists might argue that the logic of inquiry informing this chapter is firmly rooted in the positivist paradigm and owes more to quantitative than qualitative traditions, the analysis can be regarded as leaning toward that latter. This is because it is concerned with making sense of associations between variables by using the explanations of participants to elucidate the processes and mechanisms involved. Hammersley and Atkinson argue that this is a defining feature of qualitative research (1983: 20). Further, no attempt is made to "measure" anything using the results.

The use of these data in conjunction with those presented in the previous chapter is informed by the belief, articulated by Silverman, that: "there are no principled reasons to be either qualitative or quantitative in approach. It all depends upon what you are trying to do" (1993: 22) (See also Hammersley [1992: 163] for a discussion of the difficulties posed by an attempt to delineate qualitative and quantitative methods and the restrictions which the exclusive pursuit of either paradigm places on research). The blending of approaches used in this paper reflects the fact that to make sense adequately of the phenomena under consideration requires pragmatic and judicious use of a variety of methods and forms of data which can to a greater or lesser extent be classified as either quantitative or qualitative.

THE RESULTS

This section presents and discusses the results from the analysis of the survey responses. It is divided into two sub-sections. The first concerns labour process flexibility, skill and autonomy and the second deals with peripheral work and inequality.

Labour Process Flexibility, Autonomy and Skill

The discussion which follows seeks to address three substantive questions which are overlaid with a fourth, more general, one. The first issue to be addressed concerns the positive association between product innovation and skill. Discussion then turns to the question of how and why functional flexibility and procedural flexibility are positively associated with skill and autonomy. The third question concerns the negative association between technical-organisational flexibility, skill and autonomy. Finally, an issue which overlies each of the specific questions concerns the extent to which there appear to be different associations present depending upon the relative positions of workers in the labour process.

There is relatively little about the positive association between product innovation and skills to be gleaned from the interviews. In part this probably reflects the fact that law and accounting firms are constrained in the extent to which they can vary their products and services. By definition they provide quite specific sorts of services and, while there is obviously some potential for diversification or specialisation, it seems somewhat unlikely that they would be able to make very major changes in their activities.

However, the evidence collected allows some insight. Those firms which had changed what they did to meet changing demand had moved to specialise in particular areas of law or accounting, and this had led to the need to train support staff in aspects of these areas. For example, one accounting firm had moved to specialise almost entirely in insolvency, and this had led to the need for staff to receive training relevant to this field. In a similar vein, the office manager of a large law firm observed that as solicitors in the firm have become more specialised, so have support staff, with the result that "[T]hey are no longer immediately interchangeable between mortgage and matrimony for example".

The evidence suggests two things. Firstly, in this part of industry, changes to training follow on from changes to service provided, rather than the other way around. This is hardly a surprising result. It seems predictable that, rather than managers training staff in advance so that they will be ready to adapt to future change, training for new activities is only undertaken when there is a demonstrated need for it. This flies in the face of arguments which suggest that staff are being trained as a means to facilitate change. The second point which emerges is that to the extent that changes in the firm's activities lead to changes in skills, there is a move towards specificity of skill rather than diversity. Again, this runs counter to the arguments in the post-Fordist literature which suggest a broadening of skills as a means to meet changes in products or services. Thus, while the evidence from the survey is limited, and probably reflects peculiarities associated with legal and accounting firms, it suggests a rather different interpretation from that provided in the studies of the finance sector discussed earlier in the chapter.

Turning to functional flexibility, cases where managers indicated that employees required greater skill than they had in the past provide some illumination of the associations involving functional flexibility, autonomy and skill. There was a tendency in such cases for respondents to argue that the changes were due to the need for workers to perform a wide range of tasks with limited supervision, and thus to enhance the performance of the workplace in a competitive environment. For example, the managing partner of a large accounting firm said: "Skilled workers can be left alone and operate with no supervision". Similarly, the office manager of a small law firm observed that: "Skills are important. They have to be responsible and do their work without being supervised". The office manager in another firm argued that, because she had been trained to carry out all the non-legal functions in the firm, "He [the partner] can trust me" and that she was able to run the office when the partner took holidays. The office administrator of another firm opined that "training and skills and willingness to learn and quickness will become increasingly important".

However, consistent with the studies reviewed above, it was clearly the case that employees' skills were considered to be important only to the extent that they were

necessary to ensure the profitable functioning of the workplace. The necessity for employees to be skilled and responsible was expressed by one respondent in the following terms:

We're in a service industry and we have to get the job done and get it right. They (customers) don't like accounting firms to make mistakes. They're not paying us to make mistakes.

Another said of the need to enhance workplace performance: "...it's more critical now, because of the economic climate. We need to become more efficient". This suggests that it is efficient to have workers who can do a wide range of tasks without supervision, and that this requires that they have adequate skills. It undermines any claim that employers encourage training and enhanced autonomy because it leads to more rewarding work for employees, and sets this phenomenon firmly in the context of the pursuit of profit.

A further qualification to the support which these results might provide for the claim that functional flexibility has overwhelmingly positive outcomes for labour is that, while many managers assert the importance of skills, the sorts of training arrangements which are in place tend to be limited. While a few firms had structured training programs or sent staff to external courses, there was a clear tendency to rely on informal, on-the-job training rather than any sort of structured training program. For example:

Formal training in a vast percentage of cases is a waste of time. Hands on experience is the best. Working through problems until you get it right is more effective...It (training) happens daily, not in a structured sense...You must get thrown in and learn as you go.

This finding reinforces the importance of utilising both quantitative and qualitative measures of the phenomena under consideration. While at a superficial level the results are consistent with those provided by the analysis of AWIRS, when the quality and character of the training involved is considered in detail the picture which emerges falls short of the vision of a highly trained and flexible workforce contained in the more optimistic accounts of flexibility. This is not to suggest that the links between functional flexibility and skill are illusory, but it does suggest caution.

These findings can usefully be contrasted to those concerning the banking and insurance industries which were reported in Section Two. While it was noted in that section that the optimism of the accounts had to be qualified to some extent, the authors nonetheless presented an extremely positive assessment of the outcomes for workers of functional flexibility. The difference in the findings between those studies and this one may simply reflect concrete differences in the workplaces under consideration. However, the fact that the results from the law and accounting firms superficially supported the same sorts of optimistic claims as those made by Mathews (1991b) and Dunoon and Mathews (1991), and only upon more detailed consideration began to show a different picture, suggests the possibility that these authors may not have delved deeply enough. Their positive findings may reflect excessive reliance on managerial rhetoric and insufficient depth of analysis. There is

no way to confirm or deny this, but it remains a possible explanation for the difference in results.

Turning to the links between procedural flexibility, skill and autonomy, many of the managers interviewed stressed the importance of staff input to the efficient running of workplaces. For example: "We all listen as they know what's going on and can see what's required...this [staff input] would be welcomed"; "The more involvement, the better the outcome"; and "Definitely! We call ourselves 'the team' not 'the employees'". However, again the emphasis was on input to the extent that it played a role in enhancing efficiency, rather than on workers having control of their own work. A typical response was that "People are encouraged to tell us if something isn't being done efficiently".

However, as was the case for training, there would appear to be very real limitations on the extent of autonomy evident in the workplaces involved, with rhetoric and reality diverging significantly. While the responses noted above suggest that where there is input it is encouraged as a means to enhance workplace performance, the sorts of issues about which workers suggestions would be sought are limited. For example, one respondent characterised decision making in the firm as "a team effort" and described his staff as "a family". However, when asked about the extent of staff input to a relocation of the firm, he said: "They would get to do all the packing if we moved. It's up to management to make these decisions". A respondent noted that his staff had been given the opportunity to have input to the decision as to where in the office the printer would be located, another cited the example of deciding what sort of uniforms the women in the office would wear and a third who had said that staff were "very involved" in decision making supported this claim by noting that when the office had been relocated a few years previously the staff had been able to discuss with management what sort of carpet to get.

Further, in those cases where managers argued that staff were able to have input, this took place via ad hoc meetings or "informal chats", rather than any sort of formal mechanism such as a joint consultative committee. For example: "it's so informal here. We're interacting all the time. If a sufficiently important thing came up, we'd have a little group meeting".

The association between procedural flexibility and autonomy identified in Chapter Three seems potentially rather more problematic than was apparent from that analysis. When the form and content, rather than simply the existence, of worker input is considered, worker autonomy may be rather illusory. One respondent put this nicely, when he suggested that "Support staff are involved at a practical rather than a decision-making level" (emphasis added).

The survey also provides some indication of why there appears to be only limited input. Firstly, a motive for providing limited input, in preference to no input at all, is suggested by the claim that:

If you discuss things with staff they feel involved and important...[it is better to use staff meetings to discuss decisions with staff than simply to inform them of decisions via a memo]...so that they feel a little involved.

Secondly, responses provided ample support for the claims, made in previous studies, that management in the finance industry is characterised by a strong emphasis on managerial prerogative, which sets very narrow limits upon participation in decision making. Respondents generally argued that while major changes at the workplace level might well have an effect on support staff, there was no doubt that decision making prerogative rested with management. The question of why staff would have only minimal input to change brought the response that:

It's not their business!...Management decisions have to be made by management if the firm is to run properly. Staff have to fit in with the decisions...[the senior lawyer] is the owner. It's his money so it's his decision.

It would appear that where staff were given input, it was intended to provide them with a feeling of involvement without compromising managerial prerogative. Again, this runs counter to the findings of the studies reported in Section Two, although it must be acknowledged that the authors note the problems posed by the assertion of managerial prerogative. Nonetheless, the findings reported here again suggest the need for caution in accepting the arguments of these accounts.

A final relevant point which emerges is that the extent to which staff benefit from increased skill and autonomy would appear to vary depending on their relative positions in the labour process. While this phenomenon will be discussed with reference to the core/periphery issue later in the chapter, it seems that benefits are not only distributed differentially on this dimension. Even among full time permanent staff, there is evidence that benefits tend to accrue to those more central to the labour process. For example, the office manager of a law firm commented that in the case of a relocation the partners' secretaries (who represent an elite group among support staff in the legal area) would be given the opportunity for input, while other support staff would not. In another case, the office manager and the senior partner's secretary had input to a relocation, while the remaining eleven support staff did not. Another respondent said: "The more experience, the more autonomy".

Similarly, there is some evidence that the amount and type of training provided varies depending upon the staff members' centrality to production. For example, the managing partner in a law firm noted that only the head secretary was sent to external training courses, and that other staff relied on her expertise when seeking to learn new skills. Another respondent said that junior staff were trained on the job by someone more experienced, and that as the level of responsibility increased, so did the amount of training. These are hardly surprising pieces of evidence. It seems entirely predictable that more senior or central staff would have greater access to skill and autonomy. However, this issue of relative centrality is one which needs to be made to temper the apparent oversight of more optimistic commentators, who tend to gloss over the fact that even if skill and autonomy are important in a workplace there is still the potential for low-skill, low-autonomy jobs to exist.

The final association to be considered here is that between technical-organisational flexibility, skill and autonomy. The results are very much supportive of the findings of previous studies discussed in Section Two. The interviews suggest, firstly, that because functions which previously required worker skill and judgement can be

built into machines, workers tend to need less skill, and have the capacity for less control over the process of production. It appeared that in many cases this led to a situation whereby even though staff may have been getting increased training in terms of the specific functions of computerised systems, in practice they were losing conceptual and problem solving skills. This is illustrated by the comments of a partner in an accounting firm who observed that:

Computer systems are more complex and more flexible than they used to be. To understand the full scope of some of the software packages they need training...but there are some skills lost...the packages perform all the book keeping functions that used to be performed manually, so staff don't understand the logic of them. They have trouble solving basic problems.

Another respondent argued along similar lines that: "People become too reliant on it (the computer system). If things break down and work has to be done the old fashioned way...[they]...won't know how to do it". The office manager in another firm said: "I've become reliant on figures produced by the computer, so my maths skills are poor".

The second finding of previous studies also receives support from the survey results. That is, that pre-existing approaches to work organisation and management are important in determining the impact of technologies, and that the strong emphasis on managerial prerogative in the finance sector leads to a tendency for technologies and management systems to be used in ways which enhance managerial control. An illustrative case is provided by an accounting firm where the senior partner quite deliberately sought to maintain control over work by controlling the way in which technology was used. This respondent said:

All processes are standardised as much as possible, so that it's easy to see what stage a particular task is at, and so that one staff member can easily take over a task from another...I go on training courses and then train the staff. I want to be sure that I always know more about the computer system than they do, so I never have to depend on their knowledge.

This attempt to standardise procedures and centralise control is very much in keeping with the analysis of the dynamics of production provided by neo-Fordist theory, and quite clearly illustrates the importance of management practices in determining or mediating the effects of technologies on workers.

An interesting, if slightly tangential finding is that, even in cases where it would appear that the new technologies have been used to draw staff away from routine and menial tasks, there is evidence that this is done as a means to enhance productivity and cut costs rather than as a means to improve the quality of working life. This is illustrated by a law firm where the computer system had recently been upgraded, chiefly so that:

the secretaries can spend less time keyboard bashing. This gives them more time to do the routine legal work, like conveyancing, and that gives the solicitors more time for other stuff...We work in an area where time is money, literally.

While the new system appears to liberate the secretaries from mundane work by mechanising it, it is only so that they can do the solicitors' mundane work. Presumably the secretaries are not paid solicitors' wages while doing this work, and this would mean significant cost saving for the firm, which is suggested by the last sentence of the response. This case suggests that one should be cautious about accepting that there is a genuine improvement of the experience of work even in cases where the new technologies appear to be associated with greater autonomy and skill.

There is little direct evidence in the survey responses about the possibility that the impact of technical-organisational flexibility is mediated by one's position in the labour process. However, to the extent that there is any evidence, it suggests that processes of deskilling are likely to have a more profound impact on those less central to the labour process. Again this is consistent with the findings of other studies. To the extent that managements seek to centralise control as in the case outlined above, then logically the higher one is within hierarchical structures the less likely one is to be adversely effected. However, this supposition should at least be tempered by the observation that a number of office managers claimed that their own skills were being eroded by the inbuilding of functions.

The analysis of the survey responses largely supports the claims concerning the role of technology in previous studies. These are that outcomes are determined to a large extent by management approaches to work organisation; that the feature of new technologies which leads to their association with removal of skills and autonomy is the capacity to build functions into them; and that (although the evidence is limited) the position of workers in the labour process is also an intervening variable. A further conclusion suggested by the interview data is that even where skills and autonomy appear to be upgraded, the situation may not be unproblematic. These findings suggest that the role of technology in law and accounting firms is rather similar to its role in the finance industry more generally.

Irregular Employment and Inequality

This sub-section will address five questions. The first four concern the reasons why peripheral work is associated with relatively low levels of training, pay, employment security and autonomy. The fifth question is why peripheral work is overwhelmingly done by women rather than men.

The survey data suggest that in seeking to explain the tendency for peripheral work to be negatively associated with training, it is possible to discern three main contributory factors. The first is that the sorts of work which irregular employees do are such that training is rendered less likely. Specifically, there is a tendency to employ part-time, casual or temporary workers to do specialised work for which they already have the skills, or to do menial work which requires low skill levels.

In terms of the former, examples included employing a retired accountant for two days a week to administer debt collection and a librarian who was employed on a similar basis and the use of a part-time book keeper. The rationale for this sort of

practice was summed up by one respondent in the following way: "The advantage is that she does work that's too specialised for other staff, but too limited in volume to employ somebody full time". A common scenario which emerged from the interview data was the employment of such staff on a permanent part-time basis to meet needs which were predictable. They were often ex-employees of the firm who were familiar with its workings and thus required no training. There was also some evidence in accounting firms of the use of skilled casuals who were only employed during the latter part of each year when tax returns were being processed.

The alternative scenario involved the employment of casual and temporary workers to carry out routine or menial tasks, which were considered to be a waste of regular employees' time. Examples given included: shifting files; high volume typing; and answering the telephone. Although for quite different reasons, this sort of work would also be expected to be associated with a lack of training. In each scenario, the use of irregular employees as a means to utilise only as much labour as necessary at a given time is executed in a way which also minimises the need for expenditure on training. The personnel manager in a large law firm argued that his employers provided no training at all to staff other than those employed on a permanent full-time basis:

Part-time and casual staff are only used to perform specific tasks which they're expected already to be capable of. That's why we hire them. There's just not sufficient return on training investment for us to provide any training to these people.

The second point which emerged from the interviews was that there was a widespread perception that irregular employees lacked the commitment of permanent full-time workers, and thus were unlikely to stay with a firm for very long. Therefore, any effort expended in training them tended to be perceived as wasted. A typical comment was: "by the time they know the system, they go". Another respondent said:

The effort's wasted if they leave. Permanent full-time staff are always given an induction course, and familiarised with the workings of the whole firm, but part-time, casual and temporary...Well, those staff are only given the training needed to do their particular job.

A significant, if perhaps unsurprising, point is that respondents frequently said that more effort would be devoted to training permanent part-time staff than casuals or temporary staff, since the former were considered, by definition, likely to stay longer than the latter.

There would seem to be a certain circularity about this aspect of the relationship between irregularity of employment and training. Employers argue that peripheral staff are trained less due to lack of commitment, yet at the same time the lack of training, the assignment to routine tasks and the lack of career prospects associated with peripheral work seem likely to discourage workers from developing any commitment to an employer. This is illustrated by the comments of the Office Manager of a medium sized law firm, who said:

Part-time staff are preferred [rather than casual staff]. Because they're offered pro-rata full-time benefits, they're more committed and loyal to the firm. You get better work...they stay with the firm. Casuals just don't have this sort of loyalty and commitment.

The administration manager in one accounting firm, explaining how multi-skilling of workers was used as a form of encouragement for staff to pursue long-term careers, suggested that irregular employees were "more passively encouraged [than permanent full-time workers], because of the nature of the work they do", but was unable to specify what concrete encouragement was provided. It seems difficult to avoid the conclusion that the undesirable conditions associated with peripheral work contribute to irregular employees' lack of commitment.

This finding closely mirrors the arguments found in pre-existing studies of the finance industry. In particular, it is consistent with the claims of Burton (1989) and Alexander and Frank (1990), that those in irregular jobs are faced with major difficulties in demonstrating commitment or skill. If such workers are hired to do specific routine work such as shifting files, it would seem difficult for them to demonstrate a range of skills or a high level of commitment to their work. Clearly, the results reinforces the argument that preconceptions about the nature of irregular workers and the work which they are considered suitable have the potential to become self-fulfilling prophecies.

The third point which emerges is that the factors which predispose particular workers to peripheral work may work against their undertaking training, again because of the perceptions of employers, or for logistical reasons. For example:

There's no discrimination. But the part-timer's not too keen on going [to courses]. She's restricted because of her young daughter. She can't always get babysitting...Family comes first...It's necessary to fit in around family responsibilities.

These responses are indicative of a perception that women, who make up a large proportion of irregular employees, are either not interested in training, or are restricted by their family obligations. Again, this finding is consistent with those from previous studies, and demonstrates the difficulties associated with separating an understanding of the nature of irregular work from the issue of gender.

Two main factors appear to account for the tendency for irregular work to be associated with relatively low pay levels. The first is that an individual worker's pay rate is often influenced by their skill level, their experience or their length of service with a firm. Peripheral workers seem rather less likely to possess the requisite characteristics. It has been shown above that there is less attention paid to training peripheral workers than full-time permanent workers, although obviously this argument is less applicable to that segment of irregular employees who are employed to perform specific skilled tasks. To the extent that pay is influenced by skill level, then those peripheral workers who are employed to do lowly skilled jobs, and not trained, are likely to be at a disadvantage.

Further, many respondents stressed that seniority or length of service was important in that it contributed to gaining experience of the workings of the firm, and to loyalty to the firm. For example:

Loyalty is a good thing. Some women have been here for eight years. We go out of our way to make them happy if they have a positive attitude...staying in one place shows that a person [has a good attitude]...if you leave quickly, you are not there to help the company. You should be rewarded for staying [by pay increases].

Another respondent said: "Seniority does play a part. We try to keep a person here. We link the time they have worked as a factor [in setting pay]". However, as discussed above, there is a perception that irregular workers lack the commitment of permanent full-time workers. As a result they tend not to be offered the same encouragement to pursue long-term careers, which may lead to a certain circularity of causality whereby they are not encouraged to pursue careers because they lack commitment, but they lack commitment largely because they are not encouraged to pursue careers.

The second factor, which concerns the payment of wages above the award rate, is that different clerical workers are paid according to different systems. That is, there is a tendency for particular staff to be paid at the bare award rate, while others are paid above it. For example, the office manager in one law firm explained that in that office the secretaries and the receptionist were paid the award rate, the law clerk was paid just above the award, and the office manager and accountant were on salary packages. The fact that peripheral workers are often employed in particular occupations, to do routine, low level work, could be expected to put them in the category of staff who were paid the basic award rate, rather than in the group of more central staff paid above the award, and provides a plausible explanation for the tendency for such workers not to be paid over the award.

It would seem almost unnecessary to explore the issue of the lack of employment security associated with peripheral work, since by definition many such jobs are insecure. Indeed as far as casual, temporary, and some types of contract employment are concerned one would be surprised if employment security were offered. That the ability to use such workers only as required, and not to have them on staff when they are not needed is the prime motivation for hiring them is suggested by responses to the survey. For example, one respondent said that the main advantage of casual staff was that he could "ask them to come and go in line with the amount of work" and, of temporary staff, that "I don't have staff sitting around doing nothing". Another said:

We use temporary employees when we've got too much work on hand for us to handle. They're of great value to us because we take them on as we need them and let them go when the work's done. By employing temps in busy periods we're being cost efficient by not having permanent staff only working at capacity for some of the time.

Perhaps of more interest to the discussion is the possibility that many part-time workers are actually hired on a casual basis, and that even though they might work regular hours they are denied the security characteristic of permanent part-time

employment. Numerous respondents cited the advantages of employing part-time workers in terms of such things as only paying by the hour and not having to pay holiday pay, which would apply to part-time staff only if they were also casual, at least if the award was being adhered to. One respondent explained:

The people we employ part-time and casual are one and the same. They're permanent employees, working part-time and being paid on a casual basis because this gives both them and us more flexibility...Obviously we don't have to worry about holiday pay and other permanent costs.

In such situations, part-time workers are in practice subject to the same conditions as casual workers, although the relevant award makes quite different provisions for these different classes of workers. Under the *Clerical Employees Award - State* (which sets conditions for clerical workers in law and accounting firms) part-time staff are entitled to one weeks notice of termination of employment or payment in lieu, as is the case for full-time staff (QIRC 1993: 166). However, a casual employee "is engaged by the hour and...may be discharged at any moment without notice" (QIRC 1993: 174). If it is the case that in practice many part-time staff are hired on a casual basis, this provides a plausible explanation for the fact that a lack of employment security is characteristic of peripheral work in general, and not just casual and temporary work.

The processes which seem to lead to the negative association between peripheral work and autonomy are rather similar to those involving peripheral work and training. The evidence suggests that autonomy is a function of the specific type of one's job, its centrality and one's length of time and/or experience and/or loyalty. Peripheral workers tend to be in lower level jobs which are not central, and also tend to be seen as likely to stay with an employer only for the short term, and therefore unlikely to develop the characteristics which would lead to them having autonomy. To a large extent, then, the association is encouraged by the self fulfilling prophesy that peripheral workers will not stay long and therefore are not worth expending resources on, which leads employers not to encourage them to stay and perhaps become more senior, central and loyal.

Having provided some insights to the reasons that peripheral work is associated with unfavourable working conditions on a number of dimensions, the final point to be addressed in this sub-section is the over-representation of women in such jobs. The discussion must be prefaced by an acknowledgment that the reasons that women are over-represented in such jobs are far too complex and wide ranging to be dealt with using workplace level data. Nonetheless, there are some workplace level factors which play a role, and responses to the survey provide an indication of how they contribute to the over-representation of women.

Two explanatory factors emerge from the data. The first is that many managers appear to hold stereotypical views, both of the role of women in the workplace and of the appropriateness of irregular work to their needs. The second factor is that women seem to be predisposed to part-time, casual and temporary work because of the existing domestic division of labour which assigns them responsibility for childcare and housework. Obviously the two factors are linked, in the sense that the attitudes of managers both reflect and reinforce the objective reality which faces

women in the workplace. The findings here are very much consistent with those of other studies.

On the first point, many of the comments by managers, both male and female, reflected a pervasive view that women were not "real" or "serious" members of staff, and that their role in the workplace should be limited to support or decorative roles. Numerous managers referred to female clerical staff as "my girls". An office manager, speaking about the senior partner's secretary, very clearly summed up a common view: "his secretary is like his 'wife at work', paying his bills and generally looking after him". The view of the proper role of women clerical workers in law and accounting firms is also reflected in the following observations about the qualities which such staff should have: "[they should] look nice and clean"; appearance is important. She doesn't have to be a film star, but she does have to know how to present herself"; "big boobs"; "good legs"; and "wholesome sorts of girls...girls from the country". Perhaps unsurprisingly, none of the respondents mentioned appearance, sexual attractiveness, wholesomeness or capacity to fulfil a spouse's role when discussing male clerical staff. The belief that women are not serious employees in the way that men are seems entirely likely to be reflected in relatively poor working conditions, lack of career paths and so on. This is supportive of the suggestion, noted in Section Two, that peripheral jobs are associated with relatively poor working conditions precisely because they are predominantly filled by women.

Associated with this view of women is the perception that as soon as they get married, but particularly when they have children, women become even less serious employees. Reflecting this sort of view, the partner in an accounting firm, dissatisfied with his receptionist, said: "I hope she finds a good husband and a happy marriage and leaves". Associated with this was the view that there is a natural fit between being female and undertaking irregular work, because of the demands of family responsibilities. For example, the partner in one law firm argued that the reason that three of his staff were either part-time or casual was that they were "school driven - they have to pick the children up". Another respondent said of the advantages of part-time work: "It suits [clerical worker]. She's a mother and needs to work part-time to fit in with her kids". Other responses indicative of this view were: "there should be more part-time work available for women...that's what suits them"; and: "They are married with children and it's necessary to fit in with family responsibilities". It should be noted that no mention was made by any respondent of the need for male staff to have time away from work for domestic duties.

Of course, it could be argued that these sentiments simply reflect the reality faced by women employees. It may indeed be the case that irregular work does suit the needs of some women, given that the domestic division of labour inequitably distributes family responsibilities. However, it seems clear that the dominant view represented by the responses above plays a role in reinforcing this division of labour, in the sense that managers decisions about hiring staff and distributing hours of work seem likely to be influenced by their perceptions of the attributes of women. While this small amount of evidence obviously has limited explanatory power, what can be said is that it is quite consistent with the proposition that the tendency for women to occupy peripheral jobs reflects both the domestic division of labour and a patriarchal ideology shared by managers.

The findings presented here are very much consistent with those from other studies of the finance industry, and indeed with studies of irregular employment in general. This suggests that the factors identified as contributing to the poor conditions and over-representation of women are not specific to law and accounting firms or even the finance industry. The findings are also consistent with the claim, made in Section Two, that an understanding of the gendered nature of irregular employment is essential to any attempt to make sense of its other features.

THE IMPLICATIONS OF THE RESULTS

This section will have as its main task a final assessment of post-Fordist and neomanagerialist theory on the basis of the findings of this chapter. While some comments will be made on neo-Fordist theory, detailed discussion of the strengths and weaknesses of this school will be held over until the final chapter, when consideration will be given to how better to make sense of flexibility. Before assessing the theories, two important methodological matters, which bear on the substantive conclusions drawn from the chapter, will be considered.

The first is that the analysis presented above has demonstrated very clearly the utility of integrating qualitative and quantitative data as a means of dealing with the research problems. While the quantitative data presented in Chapter Four provided a firm empirical foundation upon which to build an analysis, the inherent limitations of such data restricted the conclusions which could be drawn from it. That is, to the extent that it could be used to resolve the research problems, the resolution could be considered to be extremely well grounded and reliable, but the findings remained rather blunt and static. In contrast, while the qualitative data suffer from clear limitations in terms of their applicability, they provide a much more detailed picture of dynamic processes at the level of the workplace and the ways in which they result in specific outcomes. By integrating the two sorts of analysis, the findings of the paper become much richer and more illuminating than they would be if either method were used in isolation. Thus, the approach adopted here has provided a much better account than other studies which have not employed a strategy of integrating qualitative and quantitative data. This approach is clearly vindicated by the results which it has generated.

The second point follows from this first one. While the data presented in this chapter are indeed detailed and illuminating, their utility is clearly dependent upon the extent to which they can be regarded as indicative of processes at work in industry as a whole. The point has already been made, in the section concerning methods, that it simply is not possible to know with certainty the extent to which the processes identified above are representative of processes in law and accounting firms, in the finance industry or in Australian workplaces in general. However, there are a number of reasons to suppose that generally similar processes are at work across industry.

Firstly, the processes identified in law and accounting firms appear rather similar to those reported in other studies of the finance industry, suggesting that this part of the industry is by no means unique. Secondly, there are sound theoretical and empirical reasons to suppose that the factors leading to the associations are of the kind which could be expected to be generally applicable to most workplaces. Issues such as the conflict between managerial and worker control of production, the

pursuit of cost-cutting measures and the relegation of women to less desirable jobs than men are likely to be important to a greater or lesser extent in most workplaces. Indeed, there are innumerable studies in the fields of industrial relations and the sociology of work which identify such forces as being almost universal, at least in the advanced capitalist economies.

To the extent that there are phenomena present which are specific to the finance industry, such as managerial caution arising from handling other people's money, they might be expected to amplify or reduce effects, but not to change the underlying character of the associations. Thus, while it remains possible that the processes identified here are entirely unrepresentative of those at work in other parts of Australian industry, there are sound reasons to suppose that they have some general applicability. Discussion will now turn to implications of the findings of this chapter for the theories of flexibility.

The analysis in the previous chapter provided provisional support for the post-Fordist school, although it was noteworthy that the claims concerning technical-organisational flexibility were not supported. The analysis in this chapter suggests that this provisional support must now be withdrawn, since a more detailed consideration of the nature of the relationships indicates that they are rather more problematic than post-Fordist theory would suggest. The findings presented above undermine the claims of this theoretical school, to the point where its utility is seriously called into question. The failure of this school can be explained with reference to two related flaws in post-Fordist theory, which render it largely incapable of making sense of the dynamics of capitalist production.

It was noted in Chapter Two that the post-Fordist school has been accused frequently of technological-determinism. This criticism is supported by the findings of this chapter, but it can also be extended to one that post-Fordist theory is more generally deterministic. The theory suggests that economic success will be defined by the ability to introduce appropriate forms of labour process flexibility at the workplace level. While there is an apparent choice to be made, it is between introducing new technologies and forms of production and prospering on the one hand, and not introducing them and facing ruin on the other. The notion that there is any real choice becomes rather problematic (Campbell, 1990).

Further, while adherents of the theory stress the contingency of the outcomes of new forms of productive organisation, they implicitly assume that once particular forms of flexibility are in place the positive outcomes will emerge almost as a matter of course. Thus, provided firms want to remain competitive, they must almost inevitably undertake changes which lead to positive outcomes for labour. The problem with determinism of this kind is that it allows displacement of consideration of structures of power in the workplace and beyond which play a role in leading to particular outcomes. In a significant way, technological and other forms of determinism allow politics to be removed from the account, since it can be replaced as a key determinant of outcomes by technological or economic imperatives. Yet the results presented in this chapter demonstrate clearly that the outcomes are in large part determined by political processes, in the sense that they involve competing attempts by capital and labour to assert control over production. This leads to a second problem with post-Fordist theory.

Perhaps because the deterministic nature of the account displaces a concern with politics, post-Fordist theory fails to develop or rigorously apply a coherent theoretical framework which explains the nature of relations between employers and employees, and this allows an overly optimistic view of the potential for a mutuality of interest between the two to emerge. Adherents of post-Fordist theory omit to analyse the fundamental nature of the employment relationship. Only by avoiding detailed consideration of this relationship are they able to interpret co-operation between employers and employees as constituting a fundamental transformation of work. This is somewhat paradoxical, given the debt which post-Fordist theory owes labour process theory, since the former appears blind to fundamental insights provided by the latter.

Labour process theory utilises a Marxian framework to argue that in capitalist production relations between employers and employees are of necessity antagonistic (for a useful discussion see Edwards, 1990: 127-30). However, they simultaneously entail some degree of common interest. Brown sums up the relationship as follows:

Put simply, on the one hand employers' profits...depend on keeping wage costs as low as possible whilst ensuring that employees work as 'hard' as possible; the interests of the parties are in conflict. On the other hand, employees' livelihoods, as well as employers' profits, depend on the continuing success of the enterprise or organisation; both parties have this interest in common (1992: 211).

Post-Fordist theory ignores the "structured antagonism" (Edwards 1990: 127) inherent in the employment relationship, concentrates on the co-operative aspects of the relationship, and then mistakes the limited co-operation which exists for a much more fundamental mutuality of interest between employers and employees.

The claims made by post-Fordist theorists of a fundamental transformation of work rely on the argument that relations between employers and employees also have undergone a fundamental change, for unless this has happened there are clear structural limits on the extent to which a mutuality of interest can emerge, and the extent to which labour can be empowered in any real sense. However, this necessary change is assumed rather than demonstrated, since post-Fordist theory simply does not provide any evidence that the fundamental nature of the employment relationship has changed. Since production is still taking place within a capitalist system, it seems more credible to assume, in the absence of convincing evidence to the contrary, that the relations of production remain fundamentally unchanged.

Together, these two flaws largely explain the failure of post-Fordist theory to predict outcomes. Because the burden of explaining changes within production is borne by technological and economic imperatives, insufficient attention is paid to the nature of the relations between employers and employees, with the result that they are fundamentally misapprehended. This, in conjunction with selective use of evidence, has allowed post-Fordist theorists to make extravagantly optimistic claims about the incidence and outcomes of flexibility, which have been shown not to be supported by the Australian data. It is easy to see why the utopian vision provided by post-Fordist theory is so attractive, but as Brown observes, "wishful thinking is a dangerous basis for sociological generalisation" (1992: 227). On the basis of the

findings of this paper, post-Fordist theory must be rejected as a plausible account of flexibility in industry.

While some aspects of neo-managerialist theory can be regarded as providing a superior explanation of the nature and outcomes of flexibility, it too suffers from major flaws which limit its utility. The strength of this theory lies chiefly in its recognition of some aspects of the dynamics of capitalist production, and its realistic assessment of the role of management in seeking to cut costs and enhance profitability. However, for a number of reasons, this school must also be rejected.

Firstly, in rather a similar way to post-Fordist theory, neo-managerialism provides an overly deterministic account of the emergence of outcomes. Put simply, the theory holds that managers are faced with economic difficulties which restrict their capacity to ensure that workplaces are profitable. In response, they seek greater flexibility in the utilisation of labour. Because managers tend to have the upper hand, they are able to impose flexibility on the workforce, with the latter bearing most of the costs. Thus, to the extent that managers respond rationally to difficulties by increasing flexibility, negative features are more or less automatic side effects which labour must accept. If industry is to prosper then particular outcomes are an inevitable, if unfortunate, side effect.

In assuming the existence of some sort of uniform managerial rationality which determines outcomes, neo-managerialism is guilty of a lack of concern with politics, and with the respective roles of management and workers. In terms of the role of management, the conception of managers as entirely rational seekers of maximum efficiency and profitability remains questionable. While some accounts, most notably that of Braverman (1974), have overemphasised managerial concern with control, it remains apparent that in some instances control over the production process takes precedence over the pursuit of the most rational path to profitability (see Littler, 1990 for a review of the debates about control in the labour process).

Further, the conception of labour largely as the passive recipient of flexibility and its outcomes is problematic. Once again there is ample evidence provided by the findings of the chapter that labour can be an active participant in struggles over the nature and outcomes of flexibility. Rather than the shape and outcomes of flexibility being determined simply by rational management responses to the need to maintain profitability, they are also the product of political struggle for control of production. In this sense, neo-managerialism provides a very limited and under-theorised account of flexibility.

That neo-managerialist theory only tells part of the story may simply be a reflection of a lack of theoretical rigour on the part of its originator. However, the story it tells is heavily ideological. Proponents of this school suggest that while the negative outcomes of flexibility are regrettable, they are a reflection of the harsh reality of the environment in which managers have to seek profits. The implication of Atkinson's account is that labour really has no substantial say in the matter. Labour is assumed to have to meekly accept the consequences of managerial actions. It is difficult to escape the conclusion that the implicit ideological content of the theory leads to the theoretical omissions which are largely responsible for its explanatory weaknesses.

Therefore, the conclusion to be reached is that while neo-managerialism has a partial grasp of the dynamics of capitalist production in the sense that it conceptualises managers as being constrained by the need to maximise profit, and presents the interests of capital and labour as antagonistic, it ignores other theoretical insights and thus remains at best a very limited account. This significantly reduces its explanatory powers. Indeed, so limited is its utility that, like post-Fordism, it can be rejected as a means to make sense of labour flexibility.

This leaves only the consideration of neo-Fordist theory to complete the review of the three schools. Neo-Fordist theory provides a more useful analytical tool than either neo-managerialist or post-Fordist theory. Chapter Three showed that it encompassed the useful insights of the former, while exhibiting a greater degree of descriptive and analytical sophistication. The greater utility of this model was also demonstrated by the analysis in this chapter, where the evidence was clearly more consistent with the claims of this school than either of the other two. This superior explanatory capacity can be explained by the fact that neo-Fordist theory explicitly addresses the underlying dynamics of capitalist production and how they play a role in influencing both the nature of flexibility and its outcomes. This is not to say that neo-Fordist theory is entirely adequate. However, of the available theoretical accounts it provides the best means of dealing with labour flexibility. This suggests that in seeking to theorise flexibility, the insights of neo-Fordist theory provide a useful starting point. A more detailed discussion of the strengths and weaknesses of this school will be left until the final chapter of the paper.

5. The Theoretical and Practical Implications of the Research

Two additional tasks must be undertaken before this paper is complete. First, since a central aim of this project is to further the understanding of flexibility, it is necessary to provide a final consideration of how best to make sense of the nature and outcomes of the practices under consideration. In dealing with this issue here, no attempt will be made to construct a new theory of flexibility. Such an attempt is likely to prove rather fruitless. It has already been argued that "flexibility" is simply not an adequate foundation upon which to build a theoretical model, and that the practices under consideration here are too diverse to be captured by a single term. Rather, the task is to integrate theoretical consideration of flexibility with a more general theory of organisations.

Secondly, one of the themes underlying this project is that theory is of value to the extent that it can be used to inform policies and actions. Closely related is the notion that the extent to which policies are based on a sound understanding of flexibility, and effectively pursued, will be crucial in determining the concrete implications of flexibility for workers. This chapter will demonstrate the profound impact which theories of flexibility have had on policy and practices concerning industrial relations in Australia, and explore the implications for labour of the continued pursuit of flexibility.

In performing these two tasks, this chapter will shift the focus of discussion from "micro-level" organisational politics, with which it has been concerned in the preceding two chapters, to "macro" politics at the level of state institutions. The central theme which will be developed in the chapter is that organisational practices, such as the various manifestations of "flexibility", can only properly be made sense of by understanding organisations as inherently political phenomena which are located within, and shaped by, broader institutional frameworks. Only by theorising flexibility in this way is it possible to make sense of the findings of earlier chapters.

The chapter will be divided into two sections. The first will consider key insights from recent work in organisation studies and labour process theory which appear useful in making sense of flexibility and its outcomes. These will be examined in conjunction with aspects of neo-Fordist theory. The second section moves from discussion of organisations to consideration of key elements of the policy framework which have shaped the organisation of production in Australia in recent years. It provides a discussion of the influence of theories of flexibility on industrial

relations policy in Australia, and the implications for workers of the trends which are apparent in such policies.

FLEXIBILITY AND THE POLITICS OF ORGANISATIONS

The aim of this section is to consider how to make sense of flexibility. It has been demonstrated throughout this paper that existing theoretical models are unable adequately to predict or explain the associations between flexibility and other phenomena which have been explored. This section will seek to explain why this is the case, and how better sense can be made of the outcomes of flexibility. The discussion will first provide a very general account of the nature of organisations. Secondly, it will "flesh out" the general model, by considering the specific forces which operate to shape organisations in the context of contemporary production. In doing so, it will be made clear why the neo-Fordist account is better equipped to make sense of the phenomena under consideration than either the post-Fordist or the neo-managerialist account. By explicating a theory of organisations which allows sense to be made of flexibility, this part of the discussion will provide a basis upon which to build a critique of recent Australian policy.

It should be made clear at the outset that this discussion does not seek to construct a coherent new theoretical model of flexible production. It was argued in Chapter Two that a problem with existing accounts was that they attempted to build theoretical models upon the concept of flexibility, and that this provided too insubstantial a foundation for accounts which sought to encompass so many aspects of labour processes and labour markets. Therefore, the task here is not to construct a theory of flexibility, but rather to explicate a theoretical understanding of the nature of organisations, which has the capacity to make sense of those practices which are grouped under the heading of flexibility. In pursuing this objective, the discussion will draw upon the lessons to be gained from the failings of existing theorisations and build on the insights of neo-Fordist theory. These insights will be integrated with concepts drawn from critical approaches to organisation theory, notably the work of Clegg (1979, 1989, 1990), and recent work in the field of labour process theory (see for example the collection of essays in Knights and Willmott, 1990).

The starting point for making sense of the findings of the previous chapters is to have an understanding of the nature of organisations, since the practices under consideration are manifested within organisations. The discussion which follows is not a comprehensive review of recent developments in organisation theory, nor a fully developed theory of organisations. Rather, it identifies a number of issues which are fundamental to making sense of organisational practices. The aim of this is to sketch out a very general theory of organisations which is consistent with the findings of this paper and which can be used to explain the weaknesses of post-Fordist and neo-managerialist theories and the relative strength of neo-Fordist theory.

There are two misapprehensions about how organisations are shaped which are implicit in existing theorisations of flexibility, although to a much lesser extent in neo-Fordist theory than in the other two models. The first is that organisations are created by purposive action by individuals. While it is the case that, since organisational forms are socially constructed, some notion of agency is central to the analysis, agents are not necessarily individuals (Clegg 1990: 7). For example,

they may be classes, unions, employer associations, factions within organisations or state instrumentalities, although these entities may be represented by individuals. Therefore, while individuals act within organisations and influence their shapes, to conceptualise organisations as emerging simply through the action of individuals is at best a very partial account.

Secondly, it is frequently supposed that the actions of agents involved in organisations are informed by a single, universal organisational rationality based on the pursuit of maximal efficiency. The neo-managerialist conception of organisations is particularly guilty of this fallacy. However, it represents a gross simplification of the way in which the actions of agents are informed. Rather than agents being motivated by a single rationality, there are likely to be variations in perceptions by agents of their interests and of how best to achieve them. Clegg conceptualises this aspect of organisations in terms of "modes of rationality", which he describes as "attempts by agents to make sense of the potentially ambiguous, contradictory and uncertain nature of...frameworks within which action is lodged" (Clegg 1990: 7). That is, depending on a range of factors internal and external to individual organisations, different actors will perceive a range of actions as more or less rational.

Modes of rationality will be shaped in large part by the particular frameworks in which organisations are "embedded" (Granovetter, 1985). Embeddeness refers to the fact that organisations do not exist in isolation, but are constituted within existing national frameworks of cultural and institutional value (for example, taxation regimes, industrial relations systems, regulatory practices and public policies), in relation to which they are in varying degrees "relatively autonomous" and "relatively dependent" (Clegg 1990: 7). What is rational to agents in organisations will depend crucially on the framework in which the organisation is embedded, and this is also likely to influence the resources available to different agents, which in turn is likely to influence what actions appear to be rational. Agents will attempt to accomplish things which make sense to them in the specific context in which they operate, by the means which are available in that specific context.

Both neo-managerialist and post-Fordist theories fail adequately to take into account these two insights. The general form of the account which emerges from these theories is that individual managers, faced with allegedly uniform changes to the environment, will see that there is one rational path to profitability and will accordingly seek to make their organisations flexible. While many theorists of flexibility acknowledge that there will be differences of form and outcome in different contexts, there is a tendency to at least implicitly assume too great a degree of uniformity and simplicity in the factors which shape organisations. Indeed, if not for this assumption, it would not be possible for theorists to make the claims which they do about the applicability of their models. Therefore, these accounts tend to give too much of a role to the actions of managers, informed by a universal organisational rationality, and thus are overly mechanistic and deterministic.

If organisations are not simply the result of purposive action by rational individuals, and if accounts which suppose them to be are inadequate, then it is necessary to provide a conceptualisation of what organisations are. Three key insights from organisation theory provide a means to understand the nature of organisations in a way consistent with the findings of the preceding chapters.

Firstly, the outcomes of flexibility identified in the paper only make sense if organisations are conceptualised as "arenas" in which struggles take place. That is, organisations must be understood as inherently political phenomena. This understanding of the nature of organisations, which Clegg (1990) labels the "power perspective", provides an alternative to the misplaced notion that rational individuals create organisations according to a rationality of efficiency. Explanations of how organisations are shaped, which are couched in terms of adaptation to such environmental factors as product markets and technology are rather less convincing than those which are based on an understanding of how agents associated with production act in pursuit of their perceived interests (Clegg 1990: 106). Clegg contends that:

The 'power perspective' is in many ways the *bête noire* of those researchers who stress efficiency...[Advocates of the power perspective adopt] the view that organisations and environments should be conceived as arenas. Within these arenas differentially valued resources are competed for by differentially powerful agencies, exercising differential control of these resources, in complex games with indeterminate rules which each agency seeks to exploit to its advantage(1990: 84-5).

Particular forms of flexibility cannot be seen simply as being put in place according to some predetermined logic of organisational efficiency. Outcomes are similarly unlikely to be determined in any sort of mechanistic fashion by the demands of particular forms of flexibility. That this view is more credible than one in which organisations evolve in response to environmental pressures according to the principle of "survival of the fittest", where fitness is conceptualised in terms of some notion of efficiency, has been amply demonstrated by recent work (see for example: Whitley, 1992).

In turn, this point implies two other things about organisations. Firstly, it reinforces the importance of agency. It has already been argued that organisations are shaped by the actions of agents who operate within particular frameworks and according to particular modes of rationality. Further, the data presented in the previous chapter clearly support the notion that the actions of management and unions are fundamental in determining outcomes. If the importance of agency is accepted, then it is possible to explain the fact that particular forms of flexibility are associated with different outcomes in different parts of industry, and in situations where actors associated with production behave in different ways and mobilise different resources. If, however, it is assumed that some uniform logic applies which shapes the outcomes of flexibility, the empirical evidence makes little sense.

This in turn suggests a third point. That is, that the outcomes of different forms of flexibility are very much contingent upon the modes of rationality which inform action, and also upon the relative power of agents. What is rational, and how much power agents are able to exercise, will in turn be shaped to a large extent by the institutional framework in which their organisation operates.

Therefore, the insights of recent work in organisation theory suggest three related things about the shape of a theoretical framework which can usefully help to explain the findings of the paper. Firstly, organisations should be conceptualised as arenas in which agents struggle in pursuit of their perceived interests. Secondly, this necessitates a role for agency in the explanatory framework. Finally, outcomes are

to a significant degree contingent upon the modes of rationality informing action, and upon the resources which agents are able to mobilise. These conclusions are very much in keeping with recent modifications of labour process theory, which has increasingly given credence to the importance of social action in shaping the nature of production, as a corrective to earlier accounts which excessively emphasised the importance of structures (Brown 1992: 230). Further, while these three points are not made explicit in all neo-Fordist accounts, they are all to a degree implicit in this theoretical stream.

This general account of organisations helps to make sense of the phenomena considered in the paper, but it also raises problems. There are clearly variations in the outcomes associated with particular forms of flexibility. However, a central contention of the paper has been that particular forms of flexibility are consistently associated with particular outcomes. This suggests that while outcomes may be contingent, there are factors at work which favour particular outcomes. The insights set out above would suggest that to the extent that outcomes are shaped by agents, modes of rationality and resources, there must be a degree of uniformity in each of these factors, in the particular context under consideration. This would seem to be at odds with the arguments made above, but it will be argued here that it is possible to account for the consistency of outcomes without reverting to a deterministic account. This requires the introduction of a fourth and a fifth element of a proposed theorisation of organisations.

The fourth element has already been discussed briefly above. It is the notion that actions within organisations must be perceived as "embedded" in existing organisational norms, practices and institutional frameworks, which influence the perceptions by agents of what is rational, as well as the resources available to them. When trying to make sense of the nature and outcomes of flexibility, it is necessary to appreciate that agents can never act in situations which are not already shaped by phenomena which have emerged via earlier action which was similarly embedded in a pre-existing framework. To the extent that the workplaces studied in this paper all exist within the same broad institutional framework, this can be expected to lead to a degree of consistency of outcomes.

Each of the theories being considered explicitly acknowledges the importance of specific contexts in influencing outcomes. However, there is a tendency in post-Fordist, and to a much lesser extent in neo-managerialist, accounts to implicitly assume that flexibility emerges in an environment where previously existing structures and relations no longer matter. It is only by making this implicit assumption that post-Fordist theory can hold that relations between capital and labour will be transformed, as if the antagonism between the two, and institutional arrangements such as adversarial industrial relations systems, will simply melt away.

The importance of an appreciation of the embeddeness of organisations, as a means to explaining general patterns of organisational form and outcomes, can be illustrated by considering an example from the discussion about technical-organisational flexibility in law and accounting firms. This concerns the consistent trend towards the association between computerised technologies and lack of worker autonomy. The association can be explained by a number of factors, and only some of them will be considered here.

Firstly, law and accounting firms historically have extremely low levels of unionisation, and lack workplace consultative structures. These factors would

appear to reduce the potential for worker control of how the technologies are employed. Secondly, and almost certainly relatedly, there is a pervasive norm upholding managerial prerogative, which is reflected in an emphasis on control of production by management and a rejection of the legitimacy of worker control. Thirdly, the nature of capitalist relations of production are such that in practice capital occupies a superior position by virtue of ownership of the means of production (Friedman 1990: 179-80). Further, where organisations exist chiefly to make profits, there is an imperative for managers to cut costs. Finally, the technologies have the potential to be used to enhance management control in ways which simultaneously reduce the need for expenditure on such things as training.

Each of these factors exists independently of any individual workplace, and is itself a reflection of the particular institutional and social framework in which the finance industry has developed. However, action within any workplace in the law and accounting sphere is likely to be influenced by these pre-existing features of the industry. It is rational for managers to seek to minimise labour costs. The new technologies appear to provide the opportunity to do so without threatening managerial prerogative. The fact that the organisations are privately owned and that there is a lack of union representation and of workplace mechanisms for worker control allow managers a relatively high degree of freedom to impose their preferred mode of organising the technologies. The ways in which the technologies are used are rational within the context of the industry, and presumably in many other parts of industry, and management has relative superiority in terms of resources, bolstered by a pervasive norm upholding managerial prerogative. Therefore, it is unsurprising that the association between the technologies and lack of autonomy exists. Indeed, it would be surprising if it did not.

Obviously, these factors are only some of those which influence what is rational and possible for agents associated with organisations, and which therefore shape the nature and outcomes of flexibility. However, this example serves to illustrate that if organisations are conceived as embedded, then it is possible to make sense of the nature and outcomes of flexibility in a way which would not be possible if one adopted an "asocial" (Clegg 1990: 7) conception of organisations behaving like rational individuals motivated by a uniform rationality.

The fifth component of a general theory of organisations is implied by this fourth aspect. That is, if the forms and outcomes of organisational practices are shaped by existing frameworks, it is problematic to assume that they are likely to change dramatically in the absence of major social and institutional change. This implies that a major transformation of work is unlikely to take place without a major transformation of the frameworks in which organisations are embedded. The frameworks are unlikely to change except as a result of political activity outside workplaces.

This suggests that a precondition for major changes to the nature and outcomes of flexibility is change to the institutions and policies which constitute the framework in which organisations exist. If this is the case, then politics and patterns of social organisation beyond the workplace level would appear to be of crucial importance to those who are concerned not only with the nature and outcomes of flexibility, but with any organisational practices. This insight has fundamental implications in terms of the importance of national or industry level policies and institutions in shaping organisational practices.

So far this discussion has provided an outline of the general form of a theory of organisations which can be used to make sense of the findings of this paper. However, this theoretical framework is at too high a level of generality to explain adequately the phenomena under consideration. It is necessary to specify the substantive content of the framework. As already noted, neo-Fordist theory provides an account which is broadly consistent with the model of organisations developed above. In addition, it specifies factors which contribute to the patterns which have been described in the preceding chapters. It is these features of the theory which give it a grasp of flexibility.

The fundamental strength of neo-Fordist theory can be attributed to the fact that it arises out of Marxian labour process theory, and embraces two arguments which are fundamental to this tradition. The first is that outcomes arise out of struggles. That is, they are politically derived.

The second point is that the phenomena under discussion are conceptualised as being shaped by the fact that they exist within capitalist production, which is class-based. The neo-Fordist model of flexibility is based on a conceptualisation of class politics, both within and beyond the workplace, as the primary force which shapes the organisation of production. This overriding factor can be used to explain the degree of consistency of outcomes which has emerged in spite of the fact that outcomes appear to be significantly contingent. It is the failure of post-Fordist and neo-managerialist theorists to integrate class analysis into their theoretical frameworks which largely explains their ability to make optimistic claims which fly in the face of the evidence. In contrast, it is the fact that neo-Fordism makes class analysis absolutely central to its framework, which accounts in large part for its superiority as an explanatory framework.

The notion of class is central to making sense of organisations because, in capitalist societies:

Industrial organisations have in common that...[T]hey exist because and insofar as those who establish and/or control them are able to employ others to undertake work. The employment relationship is a central and inescapable feature of such organisations (Brown 1992: 235).

Two features of the class-based nature of capitalist production are of particular note, and will be discussed here.

The first is that the raison d'être of capitalist organisations is the realisation of profit, which depends upon workers expending their labour power and employers appropriating surplus value. This leads to a "structured antagonism" (Edwards, 1990). As long as production is capitalist, this is a necessary feature. It cannot change. What can change, and according to some accounts must change, is how this relationship is managed so that surplus value can continue to be extracted. Marx and Engels characterised this as "constant revolutionising of production" (1970: 38). If it is accepted that the concrete ways of organising production change, but that the fundamental nature of class relations do not, then the outcomes of flexibility discussed in the paper can be made sense of.

Recent developments in labour process theory suggest that Braverman's (1974) conceptualisation of class relations as simply antagonistic, with managers seeking to

exert direct control over workers, is too simplistic. Rather, the relationship is contradictory. Thompson argues that:

A great degree of consensus has developed amongst more recent writers concerning the significance of the contradictory nature of the capital-labour relation...Precisely because capital has continuously to revolutionise production and labour's role in it, it cannot rely wholly on control or coercion. At some level worker's co-operation, creative and productive powers, and consent must be engaged and mobilised (1990: 101).

Such a view is quite consistent with the research reported in this paper, which shows that some forms of flexibility are associated with enhanced skill and autonomy, albeit only to a limited degree, and that this seems to be motivated by a perception that this strategy is a sound means to enhance the performance and profitability of the workplace. The research suggests that particular forms of flexibility may represent new ways of organising production, but there is insufficient evidence to support the claim that they constitute a fundamental transformation of the relations of production. If the notion of flexibility and its outcomes being constrained by the need for profit is borne in mind, then the patterns identified in this paper clearly make sense.

A second feature of capitalist production is that power and resources are differentially distributed between capital and labour, and that this has a decisive impact in patterning organisational practices. Friedman argues that

the primary dynamic influence on the organisation of work is normally exerted through the initiatives of managers. Workers will also influence work organisation, sometimes by forcing managers to alter their tactics or strategies and sometimes directly, particularly through informal practices. Nevertheless, the fundamental structure of property rights in capitalist society (and indeed in any class divided society) means that those with a primary claim of possession of the means of production will *normally* take the primary initiatives in the organisation of productive activity (1990: 179-80).

This argument recognises the structured inequality characteristic of capitalist production. It does not mean that capital inevitably wins struggles, or that action by labour is futile. However, it is suggestive that struggles at the point of production are less likely to be resolved in favour of the interests of labour than of capital. The relative advantage enjoyed by capital explains the fact that most forms of flexibility examined in this paper offer at best limited benefits to labour.

It can be seen that explicitly locating flexibility in the context of capitalist production has important implications which help to clarify the outcomes that have been identified in this paper. This framework in which organisations are embedded overlies the structures of values and institutions within which organisations exist. Indeed many of the institutions which help shape rationality, resources and action can be seen as significantly reflecting the capitalist nature of production. For example, the industrial relations system is structured around adversarial relations between the collective representatives of capital and labour (Crouch, 1977; Hyman and Brough, 1975). In turn, the nature of this system shapes what is rational and possible for agents associated with production. Further, the concept of class helps

to explain the factors which constrain the possible gains for workers arising from flexibility.

Neo-Fordist theorists conceptualise organisations as shaped by political struggles between representatives of capital and labour. Further, they present organisations as embedded in a capitalist economic framework, and a social and institutional setting which is heavily influenced by this. This explains the superior explanatory power of the neo-Fordist model.

Nonetheless, there is another factor at work which none of the theoretical models pays sufficient attention to, and which must be apprehended as part of an adequate theorisation. This is the issue of gender. The analysis in the preceding chapters has shown repeatedly, most notably with reference to peripheral work, that the nature and outcomes of some forms of flexibility cannot adequately be understood without a grasp of the influence of gender relations in the workplace, and in society more generally.

There is relatively little literature available on the subject of gender and flexibility, although there are some noteworthy exceptions (see: Jenson, 1989; Lever-Tracy, 1988; and Walby, 1989). The insights from this body of literature and from the research presented in the paper provide an indication of the ways in which gender must be taken into account in theorising organisations and making sense of flexibility.

The findings of the paper and the insights from the literature suggest that the theories of flexibility suffer, to a greater or lesser extent, from a tendency to treat flexibility as a gender neutral phenomenon (Walby, 1989). At worst, this takes the form of accounts which deal with the generic worker, who has no gender. However, even those accounts which acknowledge gender tend to present any differentiation of outcomes of flexibility as a side effect. That is, flexibility is presented as a phenomenon (or series of phenomena) which is introduced to workplaces for economic or political reasons unrelated to gender issues, but which may have differential outcomes for men and women. If these are inequitable, this is to be regretted, but it is simply an undesirable side effect of the need for industry to become more flexible. Atkinson's rather glib comments on the consequences of flexibility for women are typical of this perspective (1984: 31).

Clearly, this sort of analysis is inadequate. It has been argued that the nature and outcomes of flexibility vary depending upon whether the workers in question are male or female (Lever-Tracy 1988: 213). This assertion has been supported by the findings of this paper which show that women are over-represented where numerical flexibility strategies are employed, and which suggest that this reflects much wider patterns of gender inequality. These findings are consistent with the more general literature on gender and work, which suggests that in terms of a wide range of labour market and labour process phenomena, women are systematically disadvantaged (see for example: Martin, 1980; O'Donnell, 1984; and Walby, 1986).

It makes no more sense to consider flexibility in isolation from an understanding of the structured inequalities associated with gender than it does to consider it in isolation from issues of class. As Jenson observes, if one is studying work and starts with the assumption that workers come in two genders, then logically one ought to inquire about the gender-biased or gendering effects of the phenomena which one is investigating (1989: 141). Both empirical and theoretical evidence suggest that this

fundamental division of society cannot simply be ignored. To the extent that it is accepted that organisational practices cannot be separated from the frameworks in which they are embedded, and to the extent that one accepts that advanced capitalist societies are significantly patriarchal, it is simply not credible to seek to make sense of flexibility in isolation from gender. An adequate understanding of labour market and labour process phenomena must integrate consideration of both class and gender (Walby, 1986; West, 1990). The issue of flexibility is clearly not exempt from this requirement.

The strength of the theory of organisation which is advocated in this chapter is that it conceptualises organisations as inherently political phenomena, in which agents pursue actions which they perceive as rational, and which are embedded in existing frameworks. In this way, it can apprehend the ways in which organisational practices are inextricably linked to pre-existing patterns of power and conflict. If this conceptualisation of organisation is accepted, then it should come as no surprise that a political phenomenon as fundamental as the power differential between men and women should be manifested in organisational practices.

The discussion in this section has argued that the existing theorisations are based on inadequate conceptualisations of how organisations operate, although neo-Fordist theory comes closest to properly apprehending the important features of organisations. A number of features of a more adequate theorisation have been identified. These are that organisations should be seen not as structures which are constructed by purposive actions by individuals according to a single rationality based on efficient responses to external stimuli. Rather, organisations are "arenas" in which actors (who are not necessarily individuals) seek to pursue their perceived interests, according to a range of modes of rationality, which are informed in large part by the framework in which the organisation is embedded. Thus, the shape and activities of organisations are the result of political struggles between actors.

The important actors are representatives of capital and labour. The embeddeness of organisations in frameworks which reflect features of capitalist production and society has important implications in terms of how class actors interact, and on the resources available to them. This in turn has a decisive impact upon the nature and outcomes of organisational practices such as flexibility. However, while neo-Fordist theory apprehends the importance of class politics, neither it nor either of the other theories of flexibility pays adequate attention to gender, with the result that their explanatory powers are limited. Therefore, an adequate explanation of flexibility must take both class and gender into account.

This part of the chapter has argued for a conceptualisation of organisations as fundamentally shaped by the institutional context in which they are embedded. Discussion in the next section moves to consideration of the specific institutional framework which exists in contemporary Australia. It will be argued that changes to the policy framework governing industrial relations, which have been aimed at changing organisational practices at a workplace level, have been the result of politics at the level of state institutions. Thus, the links between the micro-level and the macro-level aspects of the politics of flexibility will be explicated.

FLEXIBILITY AND THE POLITICS OF INDUSTRIAL RELATIONS POLICY

That theories of flexibility have had a profound impact on the policy debates in Australia, and on the industrial relations system, can be demonstrated by examining the claims made and the policies pursued by the major political parties, employer groups and unions, and changes to systems of wage fixing, in the period from 1986 to the present. The account provided here will not cover all the possible ways in which the theories of flexibility may have influenced policy. Rather, since its concern is to establish that the theories have mattered in terms of the ways in which representatives of capital, labour and the state have sought to shape the institutions and rules of industrial relations, attention will be restricted to the more noteworthy developments during the period under consideration. Before commencing the discussion, two preliminary clarifications must be made.

Firstly, it has been argued that the post-Fordist and neo-managerialist models are policy prescriptions, while the neo-Fordist model is a critique of these policy prescriptions. Consequently, the latter has not served the same role in influencing policy as the former two theories. Therefore, discussion of the policies informed by theories of flexibility will be restricted to the first two theories.

Secondly, the decision to restrict the discussion to the period from 1986 to the present was made because, although notions of flexibility have featured in policy debates prior to that time, the earlier literature tends to be narrowly focussed on the issue of wages and the relative merits of regulation and deregulation of labour markets (see for example: CAI, 1980; Henderson, 1985; Norris, 1986; and Petridis, 1986). The current phase of the flexibility debate - that is the phase informed by the theories in question - emerged in Australia around 1986, in large part stimulated by the release of the Dahrendorf Report (OECD, 1986a). The post-Dahrendorf literature is distinctive both in its volume, and the extent to which post-Fordist and neo-managerialist notions are implicitly or explicitly adopted in formulating policy prescriptions.

The growing emphasis on flexibility in Australia emerged in response to economic problems experienced since the 1970s, a perception that traditional macroeconomic policy approaches were not working, and a corresponding emphasis on microeconomic reform common to many of the OECD countries (Bamber et al. 1992: 7-12; for a review of the microeconomic reform agenda, see INDECS 1988: 259-72). If struggles about the organisation of production are shaped by the frameworks in which they are set, which shape modes of rationality and the resources available to agents, it is then little surprise that the debate over flexibility has also been influenced by the institutional setting in Australia. Indeed, the Dahrendorf report notes that "differences in the history, culture and institutions of countries are relevant in framing particular labour market changes" (OECD 1986a).

In the Australian context, the policy debates have been shaped profoundly by the unique system of industrial relations. Very briefly, the debates over policy have revolved around the appropriateness or otherwise of the existing centralised system of conciliation and arbitration as a means of regulating key facets of the organisation of production (Goodwin and Maconachie 1990: 24; Plowman and Niland 1990: 119). The influence of the theories of flexibility can be seen in a series of developments which have involved a progressive shift away from the centralised

system. Before discussing these concrete policy changes, the general positions of representatives of capital and labour will be discussed.

An examination of relevant policy documents suggests that there is a general correspondence between the post-Fordist model and the policy prescriptions of representatives of labour, and between the neo-managerialist model and the prescriptions of representatives of capital. Clearly this is something of a simplification, since policy makers tend to be rather eclectic, and it is possible to identify notable exceptions. For example, among employer organisations the Metal Trades Industry Association (MTIA) would appear to have adopted elements of post-Fordist theory (Bamber et al. 1992: 9) while the Federated Ironworkers Association (FIA) is a union which could be characterised as significantly neomanagerialist in some of its prescriptions and actions (Ewer et al. 1991: 44; Williams, 1989). Nonetheless, the correspondence holds in a general sense.

To speak of "labour" and "capital" as putting forward policy prescriptions is to an extent problematic. Class is an abstract concept, and classes cannot be seen as analogous to individuals. Therefore, to speak of the policy prescriptions of capital and labour is to gloss over the fact that they are not unified entities which speak with single voices. Nevertheless, trade unions can be seen as agents which, at least formally, represent the interests of those who sell their labour power, rendering it legitimate to regard the union movement as to a significant extent a collective representative of labour. Similarly, employer associations and the coalition parties can be regarded as agents which represent key interests of significant fractions of capital. Therefore, it is considered excusable to simplify the situation by referring to the agendas of labour and capital as a means to substantiate the claim that theoretical models of flexibility have influenced the debates over policy.

Policy documents produced by the trade union movement, or consultative bodies in which unions have been involved, clearly have been influenced by post-Fordist ideas. That is, their policy prescriptions for economic recovery stress the pursuit of enhanced productivity through increased skill levels, autonomy and responsibility for workers, achieved in an environment of worker-management co-operation (see for example: ACTU/TDC [1987]; and NLCC [1987]). Some accounts provided by those associated with the labour movement quite explicitly advocate the post-Fordist position (Campbell, 1990; Carmichael, 1988, 1989). Others, while not explicitly embracing the model have clearly adopted some of its central tenets (see for example, Ewer et al. 1987). Burgess and Macdonald argue that:

The drive for labour flexibility and increased productivity in Australia owes much to the efforts of the union movement; efforts that have involved a dramatic transformation in attitudes and even ideology on the part of certain key unions and their leaders. Instead of an almost exclusive concern with distribution, these unions are now in the vanguard of restructuring work and work organisation in the interests of increasing productivity (1990: 52-3).

A useful example of the influence of post-Fordist theory is provided by the agenda of the Amalgamated Metal Workers Union (AMWU) in seeking to overhaul work organisation and skill formation in the metal and engineering sector.

This agenda profoundly influenced the process of award restructuring, which will be discussed below, and was originally articulated in the AMWU's Award

Restructuring: Guidelines for Organisers (Ewer et al. 1991: 41). Ewer et al. suggest that the AMWU saw this strategy as a counter to the deregulationist policies of the Business Council of Australia (BCA), and as a strategy with the potential to restructure the award system to meet the needs of industry while at the same time providing workers with enhanced skill and autonomy by moving away from Taylorist structures of work organisation. The aim of the AMWU was to transform the Metal Industry Award from a task-based award to a skills-based one (Ewer et al. 1991: 41). This general approach was also endorsed by the ACTU (ACTU 1989).

It is perhaps unsurprising that post-Fordist theory has been so attractive to the labour movement and its supporters. The theory is appealing in that it predicts prosperity from a major reorganisation of capitalist production which will allegedly empower labour. It suggests that the forces driving restructuring of industry in the advanced capitalist societies offer the opportunity for trade unions to realise some of their long term goals (Campbell, 1990).

In contrast, the policy agendas of significant representatives of capital can be seen as quite consonant with the neo-managerialist school (Bamber et al. 1992: 10-11). The chief proponents of neo-managerialism in Australia have been the federal opposition (Curtain and Mathews 1990:59), the Business Council of Australia (BCA) and the so-called "new right" (Dabscheck 1990b: 245). For example, the BCA document *Flexibility and Change in the Labour Market* (BCA 1987) provides an example of policy prescriptions based on the application of neomanagerialist theory to Australia. Similarly, the federal coalition's proposals for industrial relations reform issued prior to the 1992 federal election are very much in keeping with the neo-managerialist vision of flexibility (LP/NP, 1991; Phillimore, 1992).

The basis of neo-managerialist policy in Australia has been to increase flexibility via the deregulation of the labour market, with the centralised system to be replaced by enterprise bargaining (Curtain and Mathews 1990: 59) and a corresponding emphasis on the power of management at a local level to impose flexibility on the workforce. The arguments put forward in support of this perspective are overwhelmingly cast in terms of the supposed economic benefits to enterprises, and the economy in general, of flexibility. They present flexibility as simply a pragmatic response to the needs of industry.

Having noted briefly the ways in which the theories have influenced the policy prescriptions of representatives of capital and labour, the next step is to explore the ways in which the prescriptions have influenced the regulation of industrial relations by the state. This needs to be done to demonstrate that the theories have indeed influenced the framework within which production is organised. This will be done by examining three phases of development in industrial relations policy and practice: the "second tier"; "award restructuring"; and "enterprise bargaining".

Before moving to the specifics of policy, it is necessary to explain what is meant by state regulation of industrial relations for the purposes of this discussion, and to justify this focus. The matters under discussion will be limited to legislation enacted by the Commonwealth government and decisions made by the AIRC. These phenomena are considered to be a legitimate representation of the way in which the theories of flexibility have been translated into policy, since in a highly regulated system like Australia's, Commonwealth legislation and AIRC decisions can be

expected to have a profound impact on the ways in which flexibility is manifested and on its outcomes. By restricting the focus in this way, important developments which have taken place at a state level in Queensland (Goodwin and Maconachie, 1990), New South Wales (Jamieson 1993: 159-60; Moffett, 1990) and Victoria (Jamieson 1993: 160) are omitted. However, this omission can be justified on the basis that the focus of the paper is on developments at a national level, and that the general trends are consistent in the federal and state systems.

A further point which needs to be made is that the way in which the discussion has been structured suggests a conception of the policy process in which organs of the state are passive recipients of prescriptions from representatives of capital and labour, which they translate into concrete policies. In practice, the Commonwealth government and the AIRC have clearly played an active role in shaping policy. To this extent, the treatment of state regulation as a separate issue from policy prescriptions based on the theories is artificial. However, the conceptual distinction between the policy prescriptions of capital and labour and the policies administered by the state is simply used to make clear the ways in which the theories of flexibility are translated from theoretical constructs to concrete policies which set the framework within which production is organised. Discussion will now turn to the three phases of regulation.

The election of the Hawke Labor government in 1983, after nearly eight years of coalition government, saw increasing emphasis placed on the centralised wage fixing system. This was based largely on a linkage of wages to the consumer price index (CPI), and negotiated as part of the Accord between the ACTU and the ALP (see Stilwell [1986] and Ewer et al. [1991] for accounts of the development of the Accord). In the period between 1983 and 1986, wage restraint was maintained in return for social wage benefits. With the worsening current account deficit in 1986 wage indexation was discontinued and wage increases were more explicitly tied to microeconomic reform (Minister for Industrial Relations, 1989). Since then, based largely on analyses of developments in successful capitalist economies, there has been increasing emphasis in Australian policy on the relationship between the industrial relations system, labour flexibility and productivity growth, with wage increases being used to induce structural adjustment in industry (OECD 1990a: 67).

The first major step in this direction was the "second tier" system based on the "restructuring and efficiency principle" introduced by the (then) Australian Conciliation and Arbitration Commission (ACAC) (now the AIRC) in 1987. This system granted an initial ten dollar across the board wage increase followed by further increases conditional on productivity improvements at the level of the workplace or industry sector. The sorts of measures which the Commission identified as likely to be introduced included the elimination of restrictive work practices, the introduction or extension of multiskilling, training, retraining and broadbanding (ACAC 1987). The system was supported by both the Confederation of Australian Industry (CAI) and the ACTU, although there were differences between the parties as to the nature and detailed operation of the principle (Lawson 1988: 140).

It is difficult to make a definitive assessment of the extent to which the principle embodied the agenda of either labour or capital. This is chiefly because it was so short lived (Norris 1990: 128). The only detailed study of the impact of the second tier system on labour flexibility is that conducted by Rimmer and Zappala (1988). The authors suggest that the system enhanced working time and functional

flexibility most notably but provide little means to decide whether the system was more in keeping with post-Fordist model or neo-managerialist prescriptions.

Overall, however, the available evidence suggests that in its intent and operation the "second tier" system tended to embody a conception of flexibility which favoured the needs of capital. Petridis argues that:

Wage increases under the second tier were introduced by the commission in response to the generally perceived need for a more flexible system. The second tier was expected to allow differential wage responses to actual and expected productivity increases at the industry or enterprise level, while continuing to deliver wage restraint at the aggregate level (1988: 156).

It has been widely claimed that in practice, the operation of this principle often simply involved trade-offs of working conditions won in the past for current wage increases (Bramble 1989: 386-9; Junor and Barlow 1992: 21). While relatively few second tier wage increases had been granted by the end of 1987 (estimates of the percentage of the workforce who had received increases range from 15 to 20 per cent), those that had been often entailed trade-offs on the part of unions, including the elimination of rest breaks and the introduction of more flexible rosters and leave conditions (Gardner 1988: 151).

By late 1987, discussion of a new system to replace the two tiered system was underway. According to Petridis:

Discussions between the parties focussed on a continuation of elements of the centralised wage system, but with even greater emphasis on enterprise and industry bargaining. New and more innovative methods of rewarding productivity enhancing changes were to be sought. Unions as well as employers were to be encouraged to participate more actively in the process of skills acquisition and the design of career paths. The objective was to create even greater flexibility in the application of wage increases while preserving some semblance of equity through the Arbitration Commission (1988: 162).

In 1988, two events took place which can be seen as decisive in shaping the flexibility agenda in Australia up to the present. The first was the enunciation of the "Structural Efficiency Principle" (SEP) in the August National Wage Case, and the second was the passing of the Industrial Relations Act 1988. The former put in train the process of award restructuring, and the latter pushed enterprise bargaining into a new position of prominence. The issue of award restructuring will be considered first, followed by a discussion of enterprise bargaining.

The SEP went further than the restructuring and efficiency principle, seeking to restructure awards, where the second tier had only dealt with the more obvious barriers to productivity (Bramble 1989: 383). The SEP advocated moves which included establishing skill-related career paths; multiskilling of workers; new wage relativities; increased flexibility at an enterprise level; and new classification structures in awards (Minister for Industrial Relations 1989: 3-4).

The respective flexibility agendas of capital and labour are reflected in their differing approaches to award restructuring. In contrast to the approach of parts of the union movement, representatives of capital in Australia have emphasised the claim that the main problem with awards is that they have led to flow-ons of pay and conditions across firms and industries, and restricted managements' ability to shed or redeploy labour (BCA 1987: 8; Blandy and Sloan 1988: 8). Curtain and Mathews provide a useful theoretical framework, which can be used to aid conceptualisation of the agendas of capital and labour, by generating two ideal-type models of the process (1990).

The first is broadly consistent with the neo-managerialist approach. This "cost minimisation" model is said to be characterised by: a narrow agenda for negotiation about a given pay increase; simple broadening of jobs with little or no training; multiskilling as worker interchangeability; no incentives to upgrade skills; use of new technologies to enhance surveillance and control; and greater use of subcontractors, part-time workers and casuals to achieve cost reductions via numerical flexibility (Curtain and Mathews 1990: 65).

The second model, which is termed the "productivity enhancement approach" is post-Fordist in entailing: a broad agenda to link, at an industry level, skills acquisition to the needs of the industry, and at an enterprise level work reorganisation with the strategic needs of the firm; multiskilling to encourage teamwork; payment for skills rather than tasks; training by the employer as part of the job; promotion by demonstrated competency rather than seniority; delegation of responsibility to lower levels; more flexibility via teamwork and job rotation; and provision of an appropriate employment security guarantee as a basis for achieving more flexible use of skills (Curtain and Mathews 1990: 65). This approach seeks increased productivity via a reversal of Taylorist strategies of deskilling and job fragmentation, and a corresponding emphasis on functional flexibility in conjunction with increased worker autonomy.

By employing the two ideal types, it is possible to make some assessment of the extent to which policy and outcomes reflect either agenda. It has been argued that the features of the structural efficiency principle, and thus awards restructured in accordance with it, are post-Fordist in character (Mathews, 1989a). For example, the range of features set out in *Towards a New Metal and Engineering Industry Award* (MTIA/MTFU 1988) are very similar to those proposed by Mathews (1989a) as constituting a post-Fordist industrial relations agenda. The rationale for award restructuring would seem potentially to fit the post-Fordist model, aiming to foster "genuine efficiency, flexibility and ability to compete internationally" (MTIA/MTFU 1988: 8) by introducing new technology and the other complementary features set out above.

The revised Metal Industry Award (MTIA 1990) also provides some evidence of changes which are consistent with post-Fordist prescriptions. For example, in terms of reversing the Taylorist division of labour characteristic of the old award, there has been considerable progress. For example, the previous award had over 300 classifications. Classification 216 was: "Fitter, making, repairing, assembling, reassembling, setting, installing or testing cooking stoves, ovens, gas or electric stoves over 900 mm in width and up to 1500 mm in width" (Ewer 1990: 14). The new award has only 35 classifications, and stipulates in very broad terms the tasks at each level (see MTIA 1990: 32-45). Further, Section 6B of the new award requires the establishment of consultative mechanisms in workplaces (MTIA 1990:

27). While these changes to this award could be interpreted as evidence for the influence of post-Fordist ideas on the award restructuring process, other changes to the award point in another direction. For example, the revised award provides for considerably increased flexibility for management in terms of controlling hours of work, breaks and leave (MTIA 1990).

That the forms of flexibility facilitated in this award are by no means unequivocally post-Fordist is very significant. There is good reason to suppose that to the extent that the award restructuring process was to lead to flexibility of the kind envisaged by post-Fordist theorists, this would initially take place in the metal and engineering industry, for a number of reasons. This industry has tended to be at the forefront of change (Frenkel 1987). Further, it is characterised by a strong and progressive union grouping (Norris 1990: 116). The MTIA has also been identified as a relatively progressive employer association, and one which has been influenced by the post-Fordist vision (Bamber et al 1992: 9). The fact that the award restructuring process in this industry provides only limited evidence that the post-Fordist agenda has been put into practice, and also provides evidence of the influence of neomanagerialist theory, suggests that in practice the post-Fordist agenda may have been translated into concrete policy in only a limited way.

This is consistent with the claims made by Curtain and Mathews (1990) about the likely path of award restructuring. The authors argue that the nature and outcomes of the process will vary considerably across firms and sectors, being determined in large part by the political capacity shown by employers and unions within the different parts of industry (Curtain and Mathews 1990: 64). For example, while the agreements reached in the metal and engineering industry are likely to more closely approximate the post-Fordist/productivity enhancement model, those in the construction and transport industries are likely to be more consistent with the neomanagerialist/cost minimisation approach.

Similarly, Norris observes that the metal industry is atypical, for the reasons noted above, and that award restructuring of the kind found in this industry is much less likely elsewhere (1990: 116). Indeed the 1989 review of the SEP by the AIRC found that progress had been uneven across industries, and that "in the majority it is minimal" (AIRC, 1989). The general finding of the 1992 review of award restructuring conducted by the National Key Centre in Industrial Relations (Curtain et al. 1992) is certainly more indicative of a triumph of the neo-managerialist vision. Utilising the distinction made by Curtain and Mathews (1990), they argue that:

Cost minimisation changes had been widely and expeditiously implemented. Productivity enhancement measures were quite different...None of our cases had completed such an exercise...The term 'award restructuring' is now associated with redundancies in the minds of some unions and employees (Curtain et al 1992: 3-4).

While it is difficult to make any sort of definitive assessment of the outcomes of the award restructuring process, it can be seen that to some extent it has reflected the agendas of both capital and labour, and has been a process in which the forms of flexibility which should be implemented have been contested. However, it is difficult to escape the conclusion that in practice the extent of the introduction of post-Fordist forms of flexibility championed by the AMWU has been rather limited.

The analysis of the process by Ewer et al. suggests that the early promise of award restructuring was negated by the failure of progressive unions to adequately promote their agenda, and by the increasing acceptance by the government and the ACTU of the notion of enterprise bargaining (1991: 43-6; 56). It is to enterprise bargaining which the discussion will now turn.

The setting of wages and conditions by agreements between single unions and single employers is not new (Macklin et al. 1992: 12-26). Indeed, the two phases of regulation already discussed represented a significant shift towards enterprise level setting of work arrangements. However, the concern here is with the debate over enterprise bargaining which emerged out of the Industrial Relations Bill 1988, and the October 1991 National Wage Case.

In 1985, the Hancock Committee, established by the Hawke government to review the Australian industrial relations system, recommended changes to federal legislation to allow agreements to be made which would operate outside the federal and state award systems, while arguing for the retention of a centralised system (Committee of Review into Australian Industrial Relations Law and Systems 1985). These recommendations were included in the Industrial Relations Act 1988, which allowed for certified agreements (For a discussion of the operation of Section 115 of the Act in its first three years, see [Plowman 1992]). While the award, restructuring process had entailed significant workplace level negotiation, the intention of enterprise bargaining was to take the process a step further by going beyond award level change and negotiating working arrangements outside the award system (Macklin et al 1992: 37). That is, it involved an attempt to weaken the existing link between conditions set down in awards and the organisation of production at the workplace level.

After considerable debate, and an initial refusal of the AIRC to formally endorse enterprise bargaining, in the October 1991 National Wage Case the commission introduced the "Enterprise Bargaining Principle" (EBP) which allowed for ratification of agreements under the then sections 112 or 115 of the Act (later replaced by Division 3A) (AIRC, 1991). It is noteworthy that the new arrangements set strict limits on the role of the commission in arbitrating between the claims of the parties (Macklin et al. 1992: 41-2). In announcing the new legislation, the (then) Minister for Industrial Relations, Peter Cook, claimed that it "delivers all the flexibility demanded by employers in a modern economy" (Green 1993: 146).

It is difficult to say a great deal about the outcomes of enterprise bargaining, in large part because it is a recent phenomenon and research into its implications is still being undertaken (Macklin et al. 1992: 4). However, some useful observations can be made. Like the second tier system and award restructuring before it, enterprise bargaining represents some sort of amalgam of the respective prescriptions of unions and employers. Each had a different agenda, although there were also disagreements between unions and between employer associations about what enterprise bargaining should involve (Green 1993: 148). In general, it seems that employer groups saw enterprise bargaining as a way to reduce wages and conditions and weaken the union movement, while the ACTU saw it as an opportunity to attain real wage growth above increases in arbitrated minimum rates and to revitalise the union movement by pushing it into direct bargaining (Mitchell, 1992: 154-6; for some insights to the employer agenda see the explanatory notes produced by the MTIA [1991] and Ludecke [1992]). It seems likely that the

differences in agendas will be important in leading to a range of outcomes from enterprise agreements.

Green argues that of the early agreements, "a large proportion were imaginative attempts to go beyond a narrow cost-cutting approach and embrace longer term, dynamic efficiency gains" (1993: 147). Indeed an examination of a detailed survey of agreements (DIR 1992a) shows that there is some evidence that this is the case, and that to this extent post-Fordist notions of flexibility were realised in the agreements. For example, many agreements had included the provision of quite wide ranging training (DIR 1992a: 20). Similarly, it appears that much of the bargaining which has led to agreements has taken place via consultative mechanisms which had been established under award restructuring. Consideration of the survey by Macklin et al. suggests that of those agreements with consultative clauses, many were quite wide ranging and covered planning of issues such as training, career paths and multiskilling (1992: 56-7). It is noteworthy that the majority of agreements with clauses requiring consultation were in the metal industry (Macklin et al 1992: 55-6), which may reflect the nature of unions and management in that part of industry.

There is, nonetheless, much evidence suggestive of the embodiment of neomanagerialist ideas in the agreements canvassed. For example, while there were many consultative mechanisms with considerable scope and authority, there were also a considerable number which had only the capacity to make recommendations to middle managers, with decisions being made by senior management (Macklin et al 1992: 56-7). In contrast to the evidence above concerning the nature of labour process flexibility included in agreements:

Most changes introduced in workplace agreements centred on changes to work organisation, with an emphasis on increased labour flexibility...[while in some cases this involved multiskilling and broadbanding, a]...large number of agreements...[involved] For example [agreement that] labour will be permitted to be moved between areas to take account of absenteeism, seasonal fluctuations and bottlenecks in production (Macklin et al. 1992: 62-63).

For example, the CSR Pyrmont Refinery agreement allows staff to be required to do minor maintenance tasks and the ACL Gasket Company agreement allows non-production staff to be involved in production work where necessary (DIR 1992a: 6).

There was also considerable emphasis on changes in working time, usually in the form of greater flexibility for management. For example, the Incitec agreement removes all allowances for bereavement/compassionate leave, so that management can consider provision on a case by case basis (DIR 1992a: 13). The Email Orange agreement allows increased flexibility by the taking of annual leave on a rostered basis, and the Ford agreement allows for greater flexibility in the taking of leave in accordance with downturns in sales (DIR 1992a: 13). The Golden North agreement prescribes that employees change into and out of protective clothing in their own time, thereby saving 80 minutes production time per day (DIR 1992a: 15). There was also some evidence of measures to increase the use of part-time, casual and temporary workers (DIR 1992a: 17; Macklin et al 1992: 65). In terms of pay, the main changes were the absorption of allowances into total pay and the development of annualised salaries to replace overtime and allowances (Macklin et al. 1992:67).

While no definitive assessment of the outcomes of enterprise bargaining has yet been produced, at the very least the evidence presented here suggests that the neomanagerialist agenda for increased flexibility has had a significant impact on the process of enterprise bargaining. Jamieson argues that the reduced role for the commission, especially under Division 3A, may reflect the "political and intellectual hegemony" of the ideas espoused in the BCA's 1989 study report which advocated unregulated enterprise bargaining (1993: 159). It has been argued above that this report is very much consonant with the tenets of neo-managerialism. Given the enthusiasm of the coalition and employers for enterprise bargaining, and the fact that the federal ALP and the ACTU are committed to its growth (Burton and Bolt, 1993), there seems little doubt that for the immediate future it will expand. To the extent that enterprise agreements continue to reflect trends similar to that shown by early agreements, there is good reason to suppose that the forms of flexibility just discussed are likely to spread.

It is clear from the preceding discussion that a central aim of the major industrial relations reforms in Australia since the mid-1980s has been to facilitate a variety of forms of flexibility. The analysis in Chapter Three indicates that at the time of the AWIRS survey the policies (at least those implemented by that time) had not had the effect of facilitating high levels of flexibility in Australian workplaces. While it is not possible to draw any firm conclusions about future outcomes of the pursuit of flexibility, the fact that major elements of policy explicitly seek greater flexibility, and the fact that the policies have been successful at least to a limited extent, means that there is some likelihood that industry will exhibit higher levels of flexibility in the future. That is, if the current direction of policy continues to be followed, then there is good reason to suppose that Australian industry will increasingly be characterised by some or all of the forms of flexibility examined in this paper.

CONCLUDING COMMENTS

The analysis presented in this paper has important implications in terms of theory and practice. In theoretical terms, the analysis has shown that the concept of flexibility - which remains one of the more influential concepts to have emerged in the past decade - remains highly problematic as a foundation upon which to build theories of work and industrial relations. It has been shown here that theories which advocate flexibility are significantly flawed, in ways which make them poor analytical frameworks and poor guides to action.

Nonetheless, they have been extremely influential in Australia and have informed recent reforms of labour market and industrial relations policies. The practical implications of this influence are disquieting to say the least. The research presented in this paper has demonstrated that labour flexibility tends to have negative impacts upon workers. Moreover, recent changes to the industrial relations framework appear to be fostering precisely those forms of flexibility which are most damaging to working conditions. Moreover, the posited economic benefits of the continued pursuit of flexibility in Australian industry appear questionable (Bamber et al. 1992). This suggests that there is a pressing need for policy-makers to rethink their approach to the reform of labour market and industrial relations policy in Australia.

The research presented in this monograph represents a considerable advance in the debates concerning flexibility. Theoretically based claims about flexibility have been subjected to an unprecedentedly detailed empirical and theoretical analysis. As is

often the case when reliable data are introduced to theoretically based debates, much of the conventional wisdom informing policy-making has been brought into question.

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Appendix A. Construction of Variables from the AWIRS Dataset

INDEPENDENT VARIABLES

FUNFLEX (Functional Flexibility)

This variable is based on question EA31 from the Employee Relations Management Questionnaire (ERMQ). EA31 asks "over the last five years, which, if any, of these has management implemented at this workplace?" and lists a series of management/work organisation strategies, from which respondents were asked to select as many as were applicable. The following responses were identified as relevant: "job re-design"; "semi-autonomous work groups"; and "quality circles/team building". While these strategies are not examples of functional flexibility per se, the literature identifies them as strategies which require or encourage the presence of functionally flexible workers. As such, they were considered to be reasonable indicators of a propensity to adopt functional flexibility strategies.

Each affirmative response to the relevant items was assigned a value of 1. It was not possible to quantify the amount of flexibility which each of the mechanisms represented, and it was decided that since they were simply representative of a tendency, they should each be given equal weight. FUNFLEX is the total of affirmative responses to the two questions, with a range from 0 (none of the mechanisms is present) to 3 (all of the mechanisms are present).

NUMFLEX1 (Numerical Flexibility for Management)

This variable is constructed from questions GB10, GB11, GB12 and GB13, from the General Management Questionnaire (GMQ). GB10 asks "suppose that there was a substantial increase in demand for your product or service. What would be your most immediate response?" and GB11 asks "what would be your longer term response?". GB12 asks "suppose the opposite: that there was a substantial decrease in demand for your product or service. What would be your most immediate response?", and GB13 asks "what would be your longer term response?".

In each case respondents were asked to choose one response from a series. For GB10 and GB11 two responses were identified as indicative of the adoption of numerical flexibility strategies: "increase the use of contractors"; and "increase the number of people employed". For GB12 and GB13: "reduce the use of contractors"; and "decrease the number of people employed"; were identified. Each of the above responses was assigned a value of 1, and the values of the responses added together to produce NUMFLEX1. Thus, it is a scale from 0 (none of the above responses) to 4 (on each of the four questions, one of the above responses was chosen). NUMFLEX1 represents an indicator of the extent to which workplace managements claim to adopt numerical flexibility strategies in response to changing market conditions.

NUMFLEX2 (Core/Periphery)

This variable is constructed from questions EPQ2 and EPQ13, from the Employee Profile Questionnaire (EPQ). EPQ2 asks "How many employees at this workplace were in each of the following categories during the pay period ended on or before September 30 1989?", and lists the following categories: "full time permanent"; "part time permanent"; "full time casual"; and "part time casual". EPQ13 asks virtually the same question, but lists: "contractors and their employees"; agency workers"; and "homeworkers/outworkers".

Construction of the variable involved a number of steps. First, the number in each category was divided by the total number of people working for the workplace, which gave the proportion in each of the categories. Second, the proportions were multiplied by 100 to convert them to percentages. Finally, each category was weighted to reflect its relative importance in facilitating numerical flexibility. There is no standard or agreed method for determining the relative importance of each category in facilitating functional flexibility, so any weighting system is to that extent arbitrary. Nonetheless, a rank ordering was settled upon, and indicative ratings were applied as follows: full time permanent 1; part time permanent 2; full time casual 5; part time casual 6; and contractors, agency workers and homeworkers (respectively) 8.

The percentages in each category were then multiplied by the weights, and added together to form a scale with a range from 100 (100% of workers full time permanent) to 800 (100% of workers contractors, agency workers or homeworkers/outworkers). The scale provides a measure of the extent to which workplace managements utilise "peripheral" employees

PAYFLEX1 (Pay Flexibility in Response to Changed Demand)

This variable is, like NUMFLEX1, constructed from questions GB10, GB11, GB12 and GB13, but it uses the responses "increase the remuneration of employees" from the former pair of questions, and "decrease the remuneration of employees" from the latter. It is constructed in the same way as NUMFLEX1, and has a range from 0 to 4. PAYFLEX1 is an indicator of the extent to which workplace management would seek to alter pay levels in response to changing market circumstances. Like NUMFLEX1, it is a measure of intention rather than of a concrete instance of the phenomenon which it measures. Nonetheless, it is the best indicator of this form of pay flexibility available from the data set.

PAYFLEX2 (Over-Award Payments To Attract Staff)

PAYFLEX2 is constructed using questions EC11 and EC13 and EC19, from the ERMO. EC11 asks: "Did any employees covered by awards here receive overaward pay in the last pay period?". If the response was "no", PAYFLEX2 was assigned a value of 0. EC19 asks: "What are the main reasons employees are paid over the award?" and provides a series of possible responses. If the response: "Award rates too low to attract employees"; is not given, PAYFLEX2 is assigned a value of 0. Question EC13 asks (if the respondent answered EC11 in the affirmative): "what percentage of employees covered by awards were paid overaward rates in the last pay period?" If the respondent answered "yes" to EC11, and "award rates too low to attract employees" to EC19, then PAYFLEX2 is constructed as a scale from "less than 10%" (assigned a value of 1) to "all employees covered by awards" (assigned a value of 6), using responses to EC13. Thus, it is a scale with a range from 0 to 6, which indicates the extent to which employers vary pay to reflect the state of supply and demand in the external labour market. It must be made clear that it only captures upward adjustments of pay to attract workers, and not decreases in the case of an oversupply of labour.

PAYFLEX3 (Performance Based Pay)

PAYFLEX3 is based on questions EC1, EC2 and EC3, from the ERMO. EC1 asks "Do any non-managerial employees at this workplace receive payments based on some measure of performance?". EC2 asks (if a positive response is given to EC1): "What are these payments based on?"; and provides the following possible responses: "An individual's performance"; "A workgroups performance"; "This workplace's performance"; "Performance of other parts of the organisation beyond this workplace"; and, "None of the above". EC3 asks (if a positive response is given to EC1) "in the last year what percentage of non-managerial employees received any performance-related pay?". Responses are: <10% to which is assigned a value of 1; 10-25% (2); 26-50% (3); 51-75% (4); 76-99% (5); and "all non-managerial employees" (6). If a negative response is given to EC1, then PAYFLEX3 has a value of 0, as is the case if either of the latter two responses is given to EC2. If a positive response is given to EC1, and one of the first three possible responses is given to EC2, then PAYFLEX3 is constructed from EC3. Thus, it is a scale with a range from 0 (no performance related pay) to 6 (all non-managerial employees). This variable is an indicator of the extent to which pay flexibility as a means to encourage greater output is in evidence in the workplaces surveyed.

PRCFLEX (Procedural Flexibility)

This variable is constructed using question EH1 and EH16 from the ERMQ. EH1 asks: "which of these methods, if any, are currently used by management here to communicate with employees at this workplace?" A number of possible responses are provided. EH16 asks: "What are the most important objectives of the [name of method] for management?", and again lists a series of possible responses. If the response to EH1 is "Ongoing formal joint consultative committees", and the response to EH16 is either "To assist in implementing change" or "To help with the introduction of new technology", PRCFLEX is assigned a value of 2. If the response to EH1 is "Ongoing formal joint consultative committees", but neither of the above responses is given to EH16, PRCFLEX is assigned a value of 1.

Otherwise, it has a value of 0. Thus, it is a three point scale from 0 (no formal consultative committee) to 2 (formal consultative committee exists, and it is used to enhance the flexibility of the workplace). This is a useful measure of the extent to which consultative mechanisms exist as a means to enhance the flexibility of the workplace through facilitating organisational change or the introduction of new technology.

PRDFLEX(Product Innovation)

PRDFLEX utilises question GE1 from the GMQ. GE1 asks: "which, if any, of these have affected this workplace in the last two years?", and lists a series of major changes in workplace activity, ownership and organisation. If the response is "Major change in product or service", PRDFLEX is assigned a value of 1. Otherwise it has a value of 0. This dummy variable is intended to provide an indication of whether workplaces have been sufficiently flexible to make recent major changes to what they produce.

TECFLEX (Technical Organisational Flexibility)

This measure was constructed from questions GB6 from the GMO and EA31 from the ERMQ. GB6 asks: "While there may be a number of factors, which would you regard as the most crucial one for competitive success in the market for your major product or service?", and provides a number of possible responses. If any of the following was the response, a value of 1 was allocated: "Quality"; "Responsiveness to customer's requirements"; or "Providing a distinctive product or service". EA31 asks: "over the last five years, which, if any, of these has management implemented at this workplace?", and lists a number of management practices. The following responses each were allocated a value of 1: "Total Quality Control"; "Computer Integrated Management"; and "Just-In-Time". If the response to GB6 was none of the three identified, then TECFLEX was assigned a value of 0. If the response to EA31 was none of the three identified, the variable was also assigned a value of 0. If however, any of the three responses was given to GB6 and any of the three responses was given to EA31, then the variable was assigned a value of 1. TECFLEX was then constructed as the total of scores, with a range from 0 (none of the identified responses was given to any of the questions) to 3 (a positive response was given to at least one of the identified responses to GB6 and to each of the identified responses to EA31).

The variable is indicative of strategies integrating new forms of work organisation/management and technology in response to pressures to produce high quality or distinctive products in response to customer demand. It is not a precise quantitative measure since it includes a number of separate elements which cannot be regarded in a strict sense as equivalent. Rather, it provides an indicative index of a tendency to exhibit technical-organisational flexibility.

WTFLEX1 (Working Time Flexibility for Workers)

This variable was constructed from question ED10, from the ERMQ, which asks "which one of these statements best describes the influence that [name of largest occupational group] here have over the times they start and finish work?". The three available responses are: "set their own times"; "have some influence"; and

"determined solely by management". The first response was assigned a value of 3, the second a value of 2 and the third a value of 1. Thus, WTFLEX1 has a range from 1(low) to 3 (high).

WTFLEX1 was constructed as an indicator of the extent to which workers have flexibility in controlling their working hours. This was considered to be a good measure of the extent to which workers had control over the amount of labour input in a given period, and thus to be worth employing as an indicator of worker controlled working-time flexibility.

WTFLEX2 (Working Time Flexibility in Response to Changed Demand)

WTFLEX2 is constructed employing questions GB10, GB11, GB12 and GB13 from the GMQ. GB10 asks "suppose that there was a substantial increase in demand for your product or service. What would be your most immediate response?" and GB11 asks "what would be your longer term response?". GB12 asks "suppose the opposite: that there was a substantial decrease in demand for your product or service. What would be your most immediate response?", and GB13 asks "what would be your longer term response?" In each case respondents were asked to choose one response from a series. For GB10 and GB11, "Increase the amount of overtime" was identified as indicative of working time flexibility, and for GB12 and GB13 "Decrease the amount of hours worked" was chosen. Each of these responses was allocated a value of 1, and WTFLEX2 constructed as a scale from 0 to 4. This is considered to be a good indicator of the extent to which managers would respond to changes in demand by varying hours worked.

DEPENDENT VARIABLES

TRAIN1 (Provision of Study Assistance)

This variable is constructed from question EJ13 in the ERMQ, which asks: "In the last year, has this organisation provided paid study leave or given financial assistance for study to any non-managerial employees at this workplace, excluding apprentices?" TRAIN1 is a dummy variable, where a response of "yes" provides a value of 1, and a response of "no" a value of 0. It is considered to be an indicator of whether or not workers are encouraged to expand their skills, and therefore of the importance placed on skill in a workplace.

TRAIN2 (Formal Training Provision)

TRAIN2 is a dummy variable constructed from question EJ14 in the ERMQ. This question asks: "In the last year has your organisation provided any formal program of instruction for employees here that is designed to develop their skills? Please exclude any on-the-job training or attendance at conferences, or any apprentice training." Like TRAIN1, an affirmative response is allocated a value of 1, and a negative response a value of 0. This variable is also considered to be an indicator of the importance placed on skill in a workplace.

AUT1 (Worker Control of How Work is Performed)

This variable is constructed from question EH7, from the ERMQ, which asks "how much influence would you say most [name of largest occupational group] have over...How work is allocated to them?; How they do their job?; The pace at which their work is done?". On each of these three dimensions, respondents were asked to rate extent of influence from 1 (none) to 6 (complete). The scale was converted from 1-6 to 0-5 (on the basis that for the purposes of analysis "none" should have a value of 0) and AUT1 was constructed as a total of all responses to the question, with a range from 0 (none) to 15 (complete on all three dimensions). AUT1 is an indicator of the extent to which workplace managements perceive workers to have flexibility with regard to their work.

AUT2 (Worker Input to Workplace Decisions)

This variable is constructed using questions GE1, GE2 and GE6(g) from the GMQ. GE1 asks: "which, if any, of these have affected this workplace in the last two years?", and lists a series of major changes in workplace activity, ownership and organisation. GE2 asks: "Have any of the employees here been affected by the change/any of the changes that you just mentioned?". Only those workplaces where the response to GE1 was: "Major change in product or service" or "Major restructuring of how work is done" or "Introduction of major new plant, equipment or office technology"; and the response to GE2 was: "yes"; were used to construct the variable.

GE6(g) asks: "in the decision to introduce [name of most significant change] how involved [were]...Employees likely to be affected at this workplace?". Possible responses are: "Not relevant to this workplace" (Assigned a value of 0); "Were not informed" (Also assigned a value of 0); "Were informed" (1); "Were consulted" (2); "Had significant input" (3); "Made the decision" (4). If the response to GE6(g) was "Were informed", then PRCFLEX1 was given a value of 1, and so on. Thus, it has a range from 0 (Not relevant/ not informed) to 4 (workers at the workplace made the decision to introduce the change).

This variable therefore captures the extent to which workers have input to decisions affecting them, in those workplaces which have undergone recent major change. It must be made clear that this restricts the universe from which data are drawn (N=13 237), and any conclusions based on this indicator must be assessed in this light.

PAYLEV (Comparative Pay Levels)

PAYLEV is constructed from question EC20, in the ERMQ. This question asks: "how do you think earnings of non-managerial employees here generally compare with other workplaces in your industry? In this comparison, please include both the public and private sector." Respondents are asked to choose from the following: "A lot above average" (assigned a value of 5); "A little above average" (value of 4); "Average" (3); "A little below average" (2); and "A lot below average" (1). A scale with a range from 1 to 5 was constructed from these responses. This variable is intended to be indicative of tendencies to pay workers at higher or lower rates than is typical. While this is a rather imprecise measure, it provides a general indication of the relative levels of pay in a workplace.

OAWRD (Proportion of Staff Paid Over the Award Rate)

OAWRD is constructed using questions EC11 and EC13, from the ERMQ. EC11 asks: "Did any employees covered by awards here receive over-award pay in the last pay period?". If the response was "no", OAWRD was assigned a value of 0. Question EC13 asks (if the respondent answered EC11 in the affirmative): "what percentage of employees covered by awards were paid over-award rates in the last pay period?" If the respondent answered "yes" to EC11, then OAWRD is constructed as a scale from "less than 10%" (assigned a value of 1) to "all employees covered by awards" (assigned a value of 6), using responses to EC13. Thus, it is a scale with a range from 0 to 6, which indicates the extent to which workers are paid at a rate above that specified in the relevant award. This variable is a useful measure of the tendency for workplaces to offer their workers a higher rate of pay than they are legally required to.

FEMWORK (Percentage of Female Employees)

This variable was constructed from question EPQ2 in the EPQ. This question asks for the number of full-time permanent, part-time permanent, full-time casual and part-time casual employees, male and female, in the workplace during the pay period ended on or before September 30 1989. FEMWORK is calculated by dividing the number of female workers in these four categories by the total number of employees, and multiplying this proportion by 100 to give a percentage. It is thus a precise quantitative measure of the extent to which workplaces employ female workers.

EMPSEC (Security of Employment)

EMPSEC is a dummy variable constructed from question ED15 in the ERMQ. This question asks: "which...of the following are provided by this employer for the majority of employees?", and lists a series of employment conditions and benefits. If the respondent indicated "security of employment" in response, EMPSEC was given a value of 1. If this response was not given, EMPSEC was assigned a value of 0. Thus, it provides an indication of the extent to which workplaces are characterised by either security or insecurity of employment.

CONTROL VARIABLES

SECTORA (ASIC Industry Division)

SECTORA is actually a series of variables, based on question GA2 (GMQ), which asks "what is the main type of activity of this workplace, in other words what does it make or do?". Responses were coded to allow classification of workplaces into the various categories of the Australian Standard Industry Classification (ASIC) system, which are: communication; finance and business; public administration; community services; recreation and personal services; mining; manufacturing; electricity, gas and water; construction; wholesale and retail trade; and transport and storage.

The categories were used to construct a series of dummy variables, one for each industry sector, whereby if a workplace was in a particular sector it was assigned a value of 1 and if it was not in that sector a value of 0. A dummy variable was constructed for each sector as follows: COMMS (communication); FINANC (finance and business); PUBLIC (public administration); COMSER (community services); RECREA (recreation and personal services); MINING (mining); MANUFA (manufacturing); ELECTR (electricity, gas and water); CONST (construction); WHOLES (wholesale and retail trade); and TRANSP (transport and storage).

In the form of a series of categories, SECTORA provides a means to identify patterns of flexibility across industry sectors. As a series of dummy variables, it allows one to control for the effects of industry when exploring relationships between flexibility and other phenomena.

SECTORB (Public/Private Sector)

This variable is constructed using question G7 (GMQ), which asks managers to identify their workplace as public or private sector. It is constructed as a dummy variable in which public sector is 0 and private sector is 1. Similarly to SECTORA, this variable allows identification of different patterns of flexibility in the respective sectors, and allows the effect of sector to be controlled for when exploring the relationships between flexibility and other phenomena.

SIZE (Number of Employees at Workplace)

This variable was constructed from EPQ2, and is simply the total number of permanent and casual, full and part time employees at a workplace. Once again, it allows patterns to be identified, and allows the effects of size to be controlled for. For the purposes of cross tabulations, workplace size was grouped into the following categories: 20-49 employees; 50-99; 100-199; 200-499; and 500+. For the purposes of correlations the variable was unformatted.

NB. In the analysis presented in the paper, some of the variables have been reformatted, rather than being used as set out here. All tables in the text indicate how the relevant variables have been clustered for the analysis which they present.

ACIRRT

The Australian Centre for Industrial Relations Research and Teaching (ACIRRT) at the University of Sydney was established as a Key Centre of Teaching and Research in 1989 through a grant from the Commonwealth Department of Employment, Education and Training. The Centre is closely linked with the University's Department of Industrial Relations, which has a long and distinguished history of teaching and research in this area.

ACIRRT's main brief is to improve the quality of industrial relations teaching and research in Australia. This goal is being pursued through a range of activities including seminars, conferences and research projects conducted by members of ACIRRT and researchers from other institutions.