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Abstract

There has been an increased use of employee involvement and participation mechanisms in corporate decision making in the 1990s. These are often initiated by management as a means of harnessing employee expertise in decisions to introduce new technologies and to gain employee cooperation in substantial corporate restructuring and changes to work practices which have been introduced to improve the competitiveness of these organisations in global markets. It has been suggested that managers have a preference for direct negotiations with employees rather than representational consultative mechanisms, which often involving union representatives, when negotiating organisational change. Australia has had a relatively low use of formal consultative mechanism. This may be a means of avoiding involving unions in these decisions, which are considered an area of managerial prerogative.

This paper analyses the patterns of employee involvement in organisational change decisions using data from the 1995 Australian Workplace Industrial Relations Survey and a parallel survey conducted in the Illawarra Region of NSW in 1996. The initial results suggested that, while both areas had a higher incidence of direct over representational procedures, this was stronger in the Illawarra region than for Australia as a whole. This may be a reaction to the militant reputation of unions in that region. However, there was no evidence from the Illawarra survey that workplaces with delegates had less organisational change or that local union delegates or officials had more negative attitude to organisational change than employees directly affected by these changes.

A further analysis of the consultative procedures associated with each of four types of organisational change was conducted using Probit regression analysis. These results indicated that while direct consultation procedures were used more often, representational procedures and discussions with union delegates or officials had a stronger, positive association with the introduction of organisational change. The relationship between consultation and participation and organisational change was stronger in Australia than for the Illawarra. The Illawarra results, however, did not provide any evidence that union activity had retarded reform in that region.

EMPLOYEE INVOLVEMENT AND PARTICIPATION IN THE ORGANISATIONAL CHANGE DECISION: ILLAWARRA AND AUSTRALIAN PATTERNS

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INTRODUCTION

Participation has been defined as “a process which allows employees to exert some influence over their work and the conditions under which they work” (Heller, et al. 1998, p.15), or alternatively “a process in which influence on decision making is shared between hierarchical superiors and their subordinates” (Wagner and Gooding 1987 quoted in Heller, et al. 1998, p.67). These two definitions encompass a broad range of activities through which employees can affect decision making, from consultative or communication (employee involvement) mechanisms where individual workers’ input is asked for and considered by managers who retain responsibility for the final decision, to participation mechanisms involving representative structures where workers are major parties to these decisions (Hyman & Mason 1995).

It is commonly argued that the renewed interest in employee participation in decision-making apparent in management and industrial relations literature is part of a number of corporate organisational changes being trialed by firms in response to increasing competitive pressures arising in international markets during the 1990s (Markey & Monat 1997). As firms seek to ‘globalise’ their activities, they encounter competitive and uncertain market conditions. Competitive success depends upon their capacity to improve product quality and productivity within severe, market imposed cost constraints which place a premium on organisational flexibility to respond quickly to market change and on the capacity to develop and implement new technologies as a major competitive asset. At the human resources function, firms have rapidly and simultaneously reduced their work forces and radically changed their skills profile while attempting to retain scarce highly skilled personnel (Hyman & Mason 1995, US Dept. of Labor 1995).

Thus, parallel with the movement into international competition, firms introduce a range of organisational changes involving new process technologies (machinery, plant and equipment), new office technology and information systems, reorganisation of corporate structures and changes to work practices and the organisation of work at the ‘shop floor’ level. Such changes often involve radical challenges to traditional job classifications and practices and to command relationships between different levels and functions in the organisational hierarchy. The older mechanised, mass production, hierarchical systems often reduced opportunities for participation and emphasised conflict and adversarial industrial relations. However, the introduction of computer-controlled production and information-based business systems has led to the development of team-based work forces and reliance on workers’ expertise when introducing technological change. Employees’ cooperation with the introduction of these changes is needed if the transaction is to occur smoothly and the full efficiency benefits of these considerable investments is to be appropriated. Managers now seek practices which will

reduce the degree of conflict in labour relations and provide alternatives to these traditional adversarial attitudes (Heller, et al. 1998).

In this paper, the usage of different participative mechanisms associated with the introduction of corporate organisational change is analysed using data from the 1995 Australian Workplace Industrial Relations Survey and a similar survey undertaken in 1996 within the Illawarra Region, south of Sydney, NSW. The extent to which direct versus representative procedures are associated with each type of organisational change is analysed for all workplaces in these surveys. The involvement of union representatives in organisational change is also analysed. This analysis highlights variations in the patterns of participation at the local level, compared with the national average. It is hypothesised that these local variations reflect the particular industrial relations culture of this region. The Illawarra is a traditional heavy industrialised area with a history of strong and relatively militant unionism. The level of disputation has declined substantially in recent years. However, the reputation has remained, particularly among the local business community. As a consequence, local managers appear to have a much stronger preference for direct participation mechanisms than the Australian average, although there is no obvious evidence of obstructionism by local union officials and delegates.

EMPLOYEE INVOLVEMENT AND PARTICIPATION MECHANISMS

While international economic changes create an opportunity to introduce a wider variety of participation mechanisms, the actual form which these practices take is very much influenced by the political environment in which each firm participates. European companies operate in an environment which emphasises the rights of employee participation and the use of formal consultative mechanisms such as works councils. In the U.K. and the U.S.A., unitarist philosophies have emphasised the prerogatives of managers in the control of organisational change and this has increased their capacity to introduce more individualistic types of consultative mechanisms. Thus, the emphasis has been on direct communications with workers rather than representative committees in these countries (Poole & Mansfield 1993, Hyman & Mason 1995).

Regardless of the political environment, participation mechanisms are often initiated by management in order to improve that firm's capacity to achieve competitive market standards of quality and price and to respond to market changes under conditions of high uncertainty. Managers can draw upon the willingness and preference of an increasingly educated and skilled work force to participate in decisions which affect their immediate working conditions. This raises the issue of whether the renewed interest in participation involves a deliberate attempt in some management cultures to by-pass union representatives when negotiating organisational change (US Dept. of Labour 1995).

Union attitudes towards participation in consultative working arrangements vary across countries and through time. Unions in 'anglo' countries were originally hostile to such processes seeing them as a potential threat to hard-won improvements in conditions obtained through adversarial negotiation procedures and to their rights to represent workers on industrial matters. However unions in many western European countries have a long history of cooperation with 'corporatist' participation mechanisms, and particularly works councils.

Unions throughout the world have become more willing to participate in joint labour - management processes as economic conditions make organisational change imperative for the survival of many firms and the very jobs of their members.

While participation is sometimes seen as an alternative to unionism, the two are often complementary. Union support is usually dependent upon union representatives being involved in these processes, and employee participation is most effective in union settings when there is a generally cooperative environment between labour and management. Participative mechanisms survive longer in unionised workplaces while participation tends to have positive outcomes for workers' attitudes towards unionism. However unions' capacity to control participation processes depend on both the strength of the legislative requirements for consultation within a country and the resources available to and competence of local branches responsible for conducting the regular activities. Germany is a prime example where a mutually advantageous relationship between unions and other participative mechanisms have developed (Drago 1988, Eaton 1990, US Dept. of Labor 1995, Allen & Norman 1996, Markey & Monat 1997).

The various types of mechanisms used to involve employees in corporate decision-making are summarised in Figure 1.

Figure 1: Typology of Involvement and Participation Mechanisms

	With Individual Workers	With Worker Representatives
Communication Channels	Newsletters (downward) Suggestion Schemes (upward) Informal Meetings Quality Circles Attitude Surveys (upward)	Board Representatives Discussions with Union Delegates Discussions with Full-time Union Officials
Decision Making	Fully or Semi Autonomous Work Groups Formal Meetings	Works Councils* Joint Consultative Committees* Special Committees* Worker Directors

* The extent to which worker representatives on these committees are union delegates or sponsored by unions in elections will vary. It will be higher in workplaces with an active union presence.

Source: Adapted from Hyman and Mason 1995, *Managing Employee Involvement and Participation*, Sage Publications, London.

When analysing the extent of employee involvement and participation in organisational change, it is useful to divide decision-making into two broad categories.

(a) Technical decisions on the introduction of new technologies, product development and work organisation issues. These types of decisions benefit from the expertise of workers directly involved in the work process. Technical issues may no longer be regarded as a priority by unions when only incremental changes are involved and thus more informal participative processes with individual workers will be used. However union involvement in the work-team approach to implementing technical change can have beneficial effects. Case

studies have documented situations where, after initial opposition, the involvement of workers and union representatives can produce better outcomes than the original proposal by management (Levie & Sandberg 1991).

(b) Interest decisions which affect pay, conditions, power-sharing (ie workplace restructuring) and changes to work practices (which often follow technical changes). These affect the more traditional adversarial aspects of industrial relations including the sharing of productivity gains between workers and shareholders, changes to job classifications and pay relativities and challenges to managerial prerogatives in decision-making. These are major areas of concern to unions and tend to involve formal, representative mechanisms (Heller et al 1998).

The intensity of participation will also vary with the managerial philosophy of the firm and the industrial relations environment in which it operates (Gill 1993). In more authoritarian firms it may consist of downward communications only (newsletters, memos). Other firms will place a higher emphasis on direct participation involving two-way communication flows aimed at harnessing the expertise of their employees. A third category of firms may choose to emphasise representative participation as a means of providing a collective voice to their workers in order to counteract or stall union influence, or even from a genuine belief in industrial democracy. Others may institute an elaborate system of participation in order to achieve better decision-making and improved corporate flexibility (Sako 1998). As well as the motivation factor, the intensity of participation is affected by the number of mechanisms used in each firm. This can vary from one practice only to four or more in committed firms, while a minority will use no participation mechanisms at all (US Dept. of Labor 1995).

All these factors influence the types of mechanisms used for different types of organisational change and the extent to which they will have a positive or negative influence on the implementation of that change. They suggest that a complex pattern of employee involvement and mix of direct and indirect mechanisms will be found within countries and that the pattern will vary significantly under different economic conditions and political regimes. Further, it might be expected that these patterns could also vary within countries if their industrial relations systems have significant regional features. Finally, it must be recognised that participation is a means to an end. Direct correlations between increased participation and improved productivity are rare. Rather participation is seen as part of a package of workplace reforms which together provide firms with the capacity to compete effectively in international markets and is most effective when conducted in an atmosphere of trust.

THE AUSTRALIAN PARTICIPATION ENVIRONMENT

Overall the level of participation by employees in decision making in Australian firms, the subject matter of this paper, tends to be relatively low by international standards (Mitchell et al 1997). The Australian industrial relations system has historically resembled that of the U.K. with centralised industrial unions and relatively adversarial negotiations, although the pivotal role of arbitration tribunals and a federalist institutional structure added unique local characteristics from an early stage. In the mid 1980s the then Labor Government began the process of industrial relations reform and in 1986 a policy discussion paper, *Industrial*

Democracy and Employee Participation, was released. This paper argued strongly in favour of greater employee involvement in workplace decision making. This new direction was formulated through the Accord process and negotiated as trade-offs at a time when Australian firms, particularly in manufacturing, were facing severe economic problems and forced to undertake major technological and organisational changes in response to international competitive pressures. However, evidence from the time period up to the early 1990s indicated “that employee participation practices were rather thinly scattered across Australian workplaces, usually management dominated, and often short-lived in practice”(Mitchell, et al. 1997, p.200).

Australia, which once had one of the highest rates of unionism in the world, experienced a rapid decline in union coverage of workplaces during the 1980s and 1990s as its manufacturing sectors, the traditional strength of industrial unionism, increasingly felt the effects of international competition and technological change and their relative significance as an employer of labour declined rapidly. Union organisations responded by promoting a program of amalgamations but failed to attract membership in the rapidly expanding private service industries. Business organisations sponsored a move away from a centralised conciliation and arbitration tribunal system towards enterprise level bargaining with industry ‘awards’ defining most wages and conditions. Provisions were introduced into the *Industrial Relations Act 1988* and subsequent amendments to promote employee involvement. Legislative changes including the *Workplace Relations Act (1996)* reduced the significance of award pay rates and conditions for the majority of workers and allowed for individual as well as collective agreements. Within this process, most managers strongly resisted any challenges to their prerogatives. Dunphy and Stace (1990) argue that the dominant strategy in Australian business has been to introduce organisational change through “dictatorial transformation or large scale change achieved by coercive means” which resulted in significant reductions in employees and levels of management in the 1980s rather than using participative or evolutionary strategies (Lansbury 1991). However some early successes in the development of consultative procedures for technological change were achieved such as the Telecom Consultative Council of 1975 and the Public Service Association of NSW Technological Change Agreement of 1983 (Markey 1987).

The Australian union movement has strongly embraced the movement towards enterprise bargaining and has attempted to influence workplace changes by inserting ‘managing change’ clauses in these agreements which committed employers to on-going consultation prior to the introduction of technological or organisational changes and to negotiate any consequent redundancies. This change of attitude was influenced by European approaches to industrial relations and industrial development, particularly those observed by union delegations to Sweden in the early 1980s. However, Australian unions have had difficulty in influencing workplace change decisions. This is due to a lack of experience in negotiating technological change compared with the traditional areas of wages, working hours and employment conditions, the nature of that decision making process which usually involved centralised planning and financial systems which control the nature of information provided to unions, and the centralised organisational structure of unions which leaves union representation at the company or plant level under resourced (Deery 1989).

Organisational change negotiations in larger unionised workplaces have increasingly involved the establishment of “Joint Consultative Committees which bring together management and employees, usually union representatives, to discuss and agree on a wide area of the enterprises activities [including] new technologies, the strategic business plan, the training program, the quality of raw materials, work design, the reaction of customers to the product or service, morale of the work force and so on” (Ogden 1991). Despite this legislative support, only 62% of certified enterprise bargaining agreements and 59% of enterprise flexibility agreements had established consultative committees in 1994/95 with other certified agreements utilising more informal means of consultation. Of the flexibility agreements, only 19% had three or more types of consultation, 41% had two types and 31% had only one mechanism. The main issues considered by the consultative committees were dispute resolution 39%, technology and other changes 35%, productivity, efficiency, competitiveness, etc 34%, and performance appraisal 26%. Many of these clauses had been modified to provide for consultation with employees rather than unions. Further, 67% of these agreements contained provisions for specific participation by individual employees in workplace decision making (Mitchell, et al. 1997).

Nevertheless, there was a substantial increase in the use of formal methods of employee involvement in Australia between 1990 and 1995, which was reflected in the Australian Workplace Industrial Relations Surveys (AWIRS) as shown in Table 1 below. The use of joint consultative committees increased from 14% to 33% of workplaces due to the more widespread use of enterprise bargaining during this period. Employee representatives on boards increased from 7% to 16% while the incidence of task forces or ad hoc committees increased from 25% to 38% of workplaces. This increased use of representative forms of participation occurred across most industry sectors. The only form of individual involvement for which data was available in both time periods, viz quality circles, remained constant at 13% of workplaces. However, other forms of individual involvement were found in a significant proportion of workplaces in 1995. Generally, individual involvement mechanisms were more frequently used than representative methods (Morehead, et al. 1997).

*Table 1
Incidence of Employee Involvement, % of Workplaces*

Mechanism	Australia		Illawarra
	1990	1995	1996
Quality Circles	13	13	17
Joint Consultative Committees	14	33	28
Task forces or ad hoc joint committee	25	38	27
Employee representatives on Boards	7	16	-
Team building	-	47	-
Total Quality Management	-	-	37
Semi or fully autonomous work groups	-	43	34

Sources: Morehead, et al. 1997, *Changes at Work*, pp. 506-507
IRWIRS, Employee Relations Manager Questionnaire, Q. D.7.

A separate survey of workplace relations in the Illawarra region south of Sydney NSW, the Illawarra Regional Workplace Industrial Relations Survey (IRWIRS), was undertaken in 1996. Comparative results on participation methods are also shown in Table 1. The regional

workplaces had a lower incidence of representative methods of participation than Australia in 1995/96, plus a lower incidence of semi or fully autonomous work groups. However, the use of quality circles were higher in the Illawarra. These results suggest that different patterns of participation may be found in this regional area, an issue which is explored in more detail in latter parts of this paper.

REGIONAL ISSUES IN INDUSTRIAL RELATIONS

Until very recently, research has focused on the industrial effects from the interaction of national industries with international markets, and questions related to intra-national issues have been relatively neglected. However there has been a renewed interest in the question of whether local characteristics play an important role in creating and supporting internationally competitive firms. It is argued that variations in factors such as labour skills, research and training, access to telecommunications infrastructure, adaptation of new technologies and organisational change, etc have been associated with faster rates of growth and innovation in some regions relative to others (Porter 1996, Cooke 1998).

It would be expected that regions where firms have high rates of technological and organisational change would also have high usage of innovative employee involvement and participation mechanisms to facilitate the introduction of these changes and thus assist their evolution into global competitors. One major theme in the industrial relations literature has focused on whether high levels of unionism have inhibited regional development. The significance of labour market factors in the determination of business location has been continually highlighted in location studies. Labour market factors, including labour supply, labour costs, unionisation, training assistance and the overall industrial relations climate, were consistently among the most important location determinants (Vaughan-Whitehead 1992).

Studies of the determinants of location within countries also emphasised the relative importance of labour market factors, particularly for manufacturing firms. The existence of lower labour costs, low levels of unionisation, relatively unregulated economic environments and cooperative community attitudes in the 'sun belt' of the USA were considered to act as major attractors of industry during the 1970s (Craypo and Nissen 1993). The availability of reasonably priced and highly skilled labour, together with low levels of absenteeism and labour unrest were considered to be significant determinants of location decisions by US multinationals in Europe (Russell-Walling 1993). By the 1980s, both cost and quality of labour were considered to be important location determinants within the USA and Europe (Glickman and Woodward 1988; Van Liemt 1992; Manders 1995).

However, there has been a relative absence of such studies in Australian industrial relations research despite a key finding from the Taskforce on Regional Development, 1993, that industrial relations climates associated with high unionism inhibited regional development in industrial regions such as the Illawarra and the Hunter Valley (Sorensen 1998). Australian industrial regions have often been dominated by one large employer, which has set the industrial relations culture of these areas. 67% of managers in the Latrobe Valley identified regional influences as a major factor influencing organisational culture, which reflected the previous dominance of the SECV on that regional labour market (Wrathall 1996). Similarly,

regional labour markets in the Hunter Valley and the Illawarra have been dominated by BHP. The Latrobe Valley, the Hunter Region and the Illawarra are heavily unionised with past reputations for militancy, although restructuring of their regional economies has greatly reduced disputation in recent years (Alexander, et al. 1996, Gough & Pullin 1996, Markey & Wells 1997).

If, as argued elsewhere, a good industrial relations climate greatly assists the introduction of technological and organisational change, this past history may influence the type of consultation and participation mechanisms used in regions. A study of industrial relations and workplace change in the Latrobe Valley in 1992, which provided regional comparisons with the 1990 AWIRS results, “identified significant and systematic differences which are more likely to have their origins in regional social, economic and historic factors” (Gough & Pullin 1996, p.147). A similar study in the Hunter Valley undertaken in 1992-93 also supported the supposition that “a range of historical, social, geographical and political features suggest that its industrial relations in general and workplace bargaining in particular may have some distinctive characteristics” (Alexander, et al 1996, p.181). It could thus be expected that the results from the IRWIRS survey will also show distinctive features in that region’s industrial relations patterns reflecting its particular cultural background.

SURVEY RESULTS

In this paper data from the General Management Questionnaire of the 1996 Illawarra Regional Workplace Industrial Relations Survey (IRWIRS) and the 1995 Australian Workplace Industrial Relations Survey (AWIRS) were used to test the relationships between the introduction of organisational change and different types of employee involvement and participation mechanisms. The General Management Questionnaire involved face to face interviews with the most senior manager in that workplace. It asked for information on workplace characteristics, major product or service, workplace performance, management and employee relations and organisational change. 2001 workplaces were covered in AWIRS 95 and 194 workplaces in IRWIRS. Both surveys covered workplaces with 20 or more employees from all industry sectors. In most cases, identical questions were asked in both studies.

Further analysis on these results was undertaken as to whether the incidence of organisational change and the type of involvement and participation mechanisms varied depending on whether workplaces were unionised or not. In this analysis, unionised workshops are defined as those having union delegates in their work forces, as identified by the Union Delegate Questionnaire, rather than simply having union membership. The presence of union delegates is seen as an indicator of active local branch union activity and thus more likely to reflect any impact of unionism on organisational change. The Union Delegate Questionnaire also asked questions on the incidence of organisational change. This provided an opportunity to compare perceptions on organisational change by unions with those of management. 58% of workplaces in the Illawarra had delegates, while 52% of the workplaces in the Australian survey had union delegates (Morehead, et al 1997).

The extent of organisational change in Australian and Illawarra workplaces between 1994 and 1996 are shown in the following tables. Tables 2 and 3 provide a descriptive analysis of the incidence of organisational change in union and non-union workplaces, using the chi-squares test for significant variations in these results. The relationship between organisational change and employee involvement and participation mechanisms is shown in tables 4 to 7, again using the chi-squares test for significant variations. In these tables the focus is on whether there were clear differences in the observed patterns in the Illawarra data compared with the Australian patterns of involvement in the organisational change decision.

The Incidence of Organisational Change and Union Presence

The types of organisational change introduced in the 1993-1996 period are shown in Table 2(a), comparing all workplaces in the Illawarra with the Australian average. The pattern of change in the Illawarra was very similar to Australia as a whole. However, the incidence of change was lower, particularly in relation to the introduction of new office technology and workplace restructuring. General managers and union delegates, when asked which of these changes were most significant agreed that reorganisations of workplace structures had the most significant impact on employees (over 40%) followed by changes to the way non-managerial work was organised (nature of work) - 30% to 35%. Technological change, whether the introduction of new office technology or new plant, machinery and equipment was considered to have less impact on employees -10% to 15%.

Table 2(a)
Types of Organisation Change Introduced
% All Workplaces

Type of Change	Illawarra	Australia
New office technology	36.0	47.0
New plant, machinery or equipment	22.9	28.0
Reorganisation of workplace structure	43.5	51.0
Nature of work	40.7	43.0
None of the above	22.8	19.0

Source: IRWIRS General Management Questionnaire, Q.F1.
Morehead, et al, Table 11.1, p.237

In his analysis of the inter-relationships between organisational change using the AWIRS 95 data, Rogers 1998, found all these types of organisational change were positively correlated with each other. The strongest correlations were between workplace restructuring and changes to how employees do their work / nature of work (0.344) and between introduction of new office technology and introduction of new plant, machinery and equipment (0.185). A parallel analysis of the IRWIRS data also found positive correlations between all types of organisational change, except for an insignificant negative relationship between introduction of new plant, etc. and workplace restructuring. Again the highest correlation was between workplace restructuring and changes to the nature of work (0.192), although the strength of

this inter-relationship was substantially lower than for the Australian data. Significant correlations were also found between the introduction of new office technology with the introduction of new plant, machinery and equipment (0.190) and with changes to the nature of work (0.187). This analysis confirms that the pattern of change in the Illawarra was similar to the Australian pattern but at a lower intensity. Workplace restructuring, in particular, was less significant in this regional environment than for Australia as a whole.

Table 2(b)
Correlation Coefficients Between Types of Organisational Change
Illawarra - All Workplaces

	New Office Technology	New Plant Machinery, etc	Workplace Restructure	Changes to How Work is Done
New Office Technology	1			
New Plant, Machinery, etc	.190**	1		
Workplace Restructure	.135	-.021	1	
Changes to How Work is done	.187**	.085	.192**	1

Source: IRWIRS, General Management Questionnaire, Q.F1

Notes: Kendall's tau-b correlations coefficient

** Significant at 0.01 level (two-tail test)

The incidence of the introduction of each type of organisational change in workplaces with union delegates and those with no delegates is shown in Table 3 for the Illawarra and for Australia. There were no significant differences in the introduction of change between the two types of workplaces using Chi-square tests in the Illawarra as shown in Table 3(a). Union-delegate workplaces had a higher, but not significantly different, incidence of new process technologies and changes to the nature of work but lower incidences of new office technologies and workplace restructuring. Union-delegate workplaces were less likely to have had no changes but again the difference is not significant.

However, as shown in Table 3(b), significant differences did occur in the Australian data. Workplaces with union delegates were significantly more likely to have undergone a workplace restructure or a change to the organisation of non-managerial work in the past two years than those with no union-delegate presence. These were the two areas identified as having the most impact on employees and the results suggest that a union presence provided a 'voice' to employees concerns on these matters, thus facilitating the introduction of these changes. Workplaces with union-delegates were also significantly less likely to have had no organisational changes compared with non-union workplaces.

Table 3(a)
Organisational Change in Delegate and Non-Delegate Workplaces - Illawarra (%)

Type of Change	Union Delegate	Non-Delegate
Introduce new office technology	35.4	43.2
Introduce new plant and equipment	34.5	28.4
Workplace Restructure	37.2	44.4
Change Nature of Work	44.2	39.5
None of the Above	15.0	23.5

Table 3(b)
Organisational Change in Delegate and Non-Delegate Workplaces - Australia (%)

Type of Change	Union Delegate	Non-Delegate
Introduce new office technology	54.4	45.6
Introduce new plant and equipment	56.9	43.1
Workplace Restructure***	59.5	40.5
Change Nature of Work***	60.6	39.4
None of the Above***	39.7	59.5

Source: IRWIRS, General Management Questionnaire, Q.F1 by presence of union delegate.

AWIRS, General Management Questionnaire, Q.F1 by presence of union delegate.

Notes: Union Workplaces defined as those having delegates, as identified in the Industrial Relations Managers Survey.

*** significant at 99% confidence level.

The positive union ‘voice’ effect on the introduction of workplace reform was found in the analysis by Machin and Wadhvani 1991, of the 1984 (British) Workplace Industrial Relations Survey. Studies by Nunes, Crockett and Dawkins 1992, 1993, and Drago and Wooden 1992 using the 1990 Australian Workplace Industrial Relations Survey, however, found a weak negative association between union presence and organisational change / new investments, arguing that good industrial relations was more significantly associated with organisational reform than union presence. Australia had a relatively centralised industrial system in 1990. By 1995, enterprise bargaining was widespread in Australian workplaces (Morehead, et al. 1997). Thus the emergence of a stronger ‘voice’ effect in the recent survey may be associated with the move to a more decentralised industrial relations system.

The failure to find a similar positive ‘voice’ effect in the Illawarra, together with the somewhat higher level of union delegate workplaces and lower incidence of overall organisational change, particularly in relation to workplace structures may reflect unique aspects of the industrial relations climate in that region. However, it is not possible to conclude that union action retarded organisational reform in the region from this data.

Involvement and Participation in the Organisational Change Decision

Union presence appears to have had a positive impact on the incidence of non-technological organisational changes in Australia as a whole but no significant impact on these organisational changes in the Illawarra. The involvement of different worker representations with decisions to introduce organisational change in the Illawarra compared with Australia is shown in Table 4.

Table 4
Involvement in Decision to Introduce Organisational Change (% Workplaces)

Party	Type of Involvement: Illawarra				
	Made Decision	Sign. Input	Consulted	Informed	Not Informed
Union delegates (a)	0.0	11.0	30.1	37.0	21.9
Full-time union officials(b)	1.6	9.5	28.6	23.8	36.5
Employees affected	0.6	18.9	40.6	28.7	11.2
	Type of Involvement: Australia				
Union delegates (a)	1.0	18.0	27.0	34.0	20.0
Full-time union officials(b)	1.0	12.0	12.0	24.0	30.0
Employees affected	2.0	18.0	18.0	29.0	41.0

Source: IRWIRS, General Management Questionnaire, Q.F7.

Morehead, et al, Table A11.5 and A11.6, pp. 540-541

Notes: (a) workplaces with union delegates

(b) unionised workplaces only

The organisational change decision was rarely made by employees or their union representatives in either Australia or the Illawarra. Union delegates and officials had a significant input into these decisions more frequently in Australia as a whole compared with the Illawarra. Consequently, the proportion of union delegates either consulted or informed in the Illawarra was higher than the Australian average, while the proportions not informed were similar. The Latrobe Valley study also found higher than average proportions of union delegates being consulted or informed on these changes than in Australia in 1990 (Gough & Pullin 1996). Full-time union officials, however, were overall less involved in the organisational change decisions in the Illawarra relative to the Australian average. The proportion of employees affected by the change and having a significant input was similar for both areas. By contrast, the employees affected by the change were more frequently consulted rather than being informed in the Illawarra than the Australian average. These data suggest that there may be a stronger tendency in the Illawarra to negotiate organisational change with employees directly and to exclude union representatives, particularly full-time officials compared with Australian trends.

The types of discussions held on the introduction of organisational change in the Illawarra and Australia are shown in Table 5 comparing workplaces with union delegates with all workplaces. Looking first at all workplaces, there was a lower intensity of negotiation in the Illawarra than the Australian average, except for informal discussions with employees. A similar pattern was found when comparing types of discussions in workplaces with delegates in

the Illawarra with Australia. In both Australia and the Illawarra, discussions and / or meetings with employees was the most common type of consultation.

Table 5
Type of Discussions on the Implementation of Organisational Change
(% of Workplaces affected by this change)

	Illawarra		Australia	
	% All Workplaces	% Workplaces with Delegates	% All Workplaces	% Workplaces with delegates
Management held				
Informal discussion with employees	60.1	54.2	58.7	55.4
Formal meeting with employees	63.3	66.7	67.8	72.8
Joint Consultative Committee established	21.1	29.2	31.9	40.7
Special committee constituted	17.5	25.0	27.6	33.9
Discussion with union delegate	16.5	27.1	28.2	42.5
Discussion with full-time union officials	12.7	19.8	23.1	34.0
Other	1.9	3.1	4.5	4.9
No discussions	6.7	10.4	4.8	4.1

Source: IRWIRS General Management Questionnaire, Q.F8.
AWIRS General Management Questionnaire, Q.F8

While discussions with union delegates and full-time union officials was more common in workplaces with union delegates, the incidence of this form of consultation in the Illawarra was well below the Australian average. There was a relatively low incidence of discussions in Joint Consultative Committees (JCC) regionally and nationally, with these also more likely to be established in workplaces with union delegates. The Latrobe and Hunter studies found that there was a higher incidence of formal consultative committees in these regions relative to Australia in union-delegate workplaces (Alexander, et al 1996, Gough & Pullin 1996). However, their use in Illawarra workplaces was lower than the Australian average. Specially constituted committees also occurred relatively more frequently in delegate workplaces. These data indicate that formal types of discussions occur more frequently in workplaces with union delegates. Informal discussions with employees affected by the change occur slightly less frequently in delegate workplaces. Workplaces with delegates were more likely to have no discussions than the average in the Illawarra, implying some attempts to avoid discussions with unions may be associated with the introduction of organisational change in this region.

The type of discussions held in association with each type of organisational change are shown in Table 6. In both Australia and the Illawarra, formal meetings with employees was the most common form of consultation for all types of changes except the introduction of new plant, machinery and equipment where informal discussions with employees was the most common mechanism in both areas. Joint consultative committees were more frequently used in the Illawarra in association with the introduction of new office technology and over changes to the nature of work, but less frequently for the introduction of new plant and equipment and workplace restructuring. Special committees were more frequently used to negotiate workplace restructuring and changes to the nature of work in the Illawarra.

Table 6
Type of Discussion by Type of Organisational Change
(% of Workplaces Affected by this Change)

Type of Discussion: Illawarra							
Type of Change	A	B	C	D	E	F	G
New office technology	56.8	68.9	18.9	20.3	20.5	17.9	9.5
New plant and equipment	67.7	58.1	22.6	17.7	25.6	17.9	8.1
Workplace restructure	64.1	67.9	21.8	29.5	31.0	28.6	3.8
Nature of work	63.4	70.7	34.1	25.6	40.0	28.0	2.4

Type of Discussion: Australia							
Type of Change	A	B	C	D	E	F	G
New office technology	56.0	61.0	16.0	25.0	15.0	6.0	7.0
New plant and equipment	63.0	44.0	26.0	22.0	23.0	8.0	5.0
Workplace restructure	53.0	68.0	29.0	23.0	35.0	26.0	8.0
Nature of work	63.0	71.0	27.0	22.0	41.0	26.0	4.0

Source: IRWIRS General Management Questionnaire, Q.F8 x Q.F1.
 Morehead et al 1997, Table 11.6, p245

- Notes: A: Informal discussion
 B: Formal meeting
 C: Joint consultative committee
 D: Special committee
 E: Discussion with union delegate¹
 F: Discussion with union officials²
 G: No discussions
 1. restricted to workplaces with union delegates
 2. restricted to unionised workplaces

Discussions with union delegates and full-time officials occurred more frequently in the Illawarra than Australia for most types of organisational change, although in many cases the differences are very small. Union representatives were much more significantly involved in negotiations over the introduction of new technology in the Illawarra than the Australian averages. However the pattern of regional union involvement in workplace restructuring and changes to the nature of work were very similar to those found in Australia as a whole.

As shown in Table 7, overall national and regional managers rated similar proportions of each negotiating group as resistant or strongly resistant to change. However, Illawarra managers regarded all negotiating parties as less 'strongly resistant' to change than did Australian managers on average. Illawarra managers also regarded a higher proportion of employees affected by change as 'resistant' and a lower proportion 'in favour' than the Australian average. It is interesting to note that Illawarra managers more frequently regarded union delegates and full-time union officials as 'neutral' or 'resistant' rather than 'in favour' of change compared with the Australian average.

Table 7
Managers' Rating of Reactions to Change
(% of Workplaces)

	Illawarra				
	Strongly Resistant	Resistant	Neutral	In Favour	Strongly In Favour
Union delegates*	3.9	22.6	42.5	24.0	7.0
F-T union officials*	1.4	20.2	55.1	18.0	5.4
Employees affected	2.3	30.7	14.2	31.5	21.3
Employees generally	---	14.6	30.9	37.8	16.6
First-line supervisors	1.2	13.2	17.7	43.8	24.4
Management	1.3	9.4	4.7	29.4	55.2

	Australia				
	Strongly Resistant	Resistant	Neutral	In Favour	Strongly In Favour
Union delegates*	9.0	16.0	36.0	31.0	8.0
F-T union officials*	9.0	11.0	52.0	22.0	5.0
Employees affected	5.0	18.0	18.0	41.0	18.0
Employees generally	3.0	13.0	24.0	46.0	15.0
First-line supervisors	3.0	12.0	18.0	42.0	25.0
Management	3.0	8.0	10.0	35.0	44.0

Source: IRWIRS General Management Questionnaire, Q.F11.
Morehead, et al, Table 11.8, p. 247

Note: * includes only unionised workplaces.

Overall, these data indicate that the pattern of consultation and organisational change was similar in both the Illawarra and Australia, although the incidence of consultation was lower in this regional area. There is a strong preference by managers to negotiate organisational change directly with employees throughout Australia but this was even stronger in the Illawarra. While they regarded employees directly affected as more resistant to change than union delegates and officials, these managers still appeared to prefer to negotiate directly with employees on these issues as they also saw this group as being more in favour of change than union representatives. These results suggest that more direct forms of involvement and participation are likely to be found in the Illawarra.

ORGANISATIONAL CHANGE AND CONSULTATIVE PROCEDURES

The discussion in the previous section suggests that there were some discernible differences in the pattern of employee involvement and participation in the Illawarra relative to the Australian average. There appears to be a stronger preference by Illawarra managers for direct negotiation mechanisms rather than representative mechanisms. Consequently, a further analysis of the relationships between organisational change and the use of different mechanisms in the two surveys was undertaken using the logistic model within Probit regression analysis.

Probit analysis is preferred when the explanatory variables are binary. The logistic procedure is generally preferred when using observational data.

Previous studies of the relationship between the incidence of organisational change and union presence have been undertaken using probit or logit regressions, for example Machin and Wadhvani 1991, Drago and Wooden 1992, Nunes, et al. 1993. This study uses a similar methodology to those studies. However the main area of concern is the relationship between the introduction of each type of organisational change and the types of employee involvement or participation mechanism used, rather than union presence per se. A separate set of models were run for unionised (union-delegate) workplaces to identify whether different patterns of participation operated in such workplaces.

In this study the dependent variables are the introduction or not of each of four types of organisational change; new office technology, new plant, machinery and equipment, workplace restructure, or changes to how work is done. These reforms are treated as being independent, although workplaces often introduce more than one change as shown in table 2(b). Observed correlations between all variables were low, being between 0 and .3. The relationship between each of these reforms and two types of direct mechanisms (informal discussions and formal meetings with employees) and two types of representative mechanisms (joint consultative committees and special committees) were analysed using logit regression. For union-delegate workplaces, the relationship between each organisational change and discussions with union delegates and union officials was also analysed. All dependent and independent explanatory variables are binary. Overall, a positive relationship between each of the mechanisms and each type of organisational change would be expected. For the issues under analysis in this study, the t-value test of the significance of the relationship is of relevance rather than the actual value of the coefficient.

Illawarra Results

Logit results for the Illawarra region are shown in Appendix I. In Model I, the relationship between consultation and organisational change for all workplaces was tested.

There was a significant positive relationship between the introduction of new office technology and holding formal meetings with employees but also a significant negative association between the establishment of joint consultative committees and the introduction of new office technology. It was noted earlier that the Illawarra had a relatively low incidence of new office technology (Table 2a) but used joint consultative committees when negotiating its introduction more frequently than the Australian average (Table 6).

The relationship between the introduction of new plant, machinery and equipment and the various consultative mechanisms was much weaker. There was a weak positive relationship with holding informal discussions with employees and a weak negative association with formal meetings with employees. These results thus provide some support for the apparent preference among Illawarra managers to negotiate directly with employees over organisational change rather than through worker representatives, at least in relation to technological change decisions.

Workplace restructuring was identified as the type of organisational change which has most impact on workers. Thus it is not surprising that it was associated more significantly with most types of consultation. There were significant positive relationships between workplace restructuring and formal meetings with employees and discussions in special committees. This indicates that the involvement of workers in the decision has a significant impact on the introduction of this most difficult type of organisational change. However, again there was a negative relationship between workplace restructuring and the use of joint consultative committees, suggesting that the discussion of this type of change in general committees in conjunction with other workplace issues may retard its introduction.

Changes to the nature of work or the way in which non-managerial work is organised is the area most traditionally of concern to workers and union representatives. It is frequently associated with the introduction of new technology and workplace restructuring. There was a weak significant positive association between introducing changes to the organisation of work and formal meetings with employees and a stronger positive relationship with discussions within joint consultative committees. Thus, in this traditional area of industrial relations concern, the involvement of worker representatives through discussions in general committees appears to have assisted change.

To test the influence of an active union presence in the workplace on these variables, further analysis was conducted using only those workplaces which had union delegates. These results are shown in Model II of Appendix I. There was a weaker positive relationship between the introduction of new office technology and holding formal meetings with employees. There was a weak negative association between discussions with union delegates and this type of change. However the effect of discussions in joint consultative committees which often involve union supported worker representatives or officials, although still negative, was no longer significant. There were no significant associations between the introduction of new plant, machinery and equipment and consultation mechanisms in delegate workplaces. These results thus provide no substantial evidence that discussions with union officials retarded the introduction of technological change in Illawarra workplaces.

In relation to workplace restructuring, the impact of discussions in formal meetings with employees and joint consultative committees became insignificant in union-delegate workplaces. However, the positive influence of holding discussions in special committees remained significant as in Model 1. The impact of holding discussions with union delegates and union officials were not significant. These results provide some support for the use of representative mechanisms, focused on the particular issue, when dealing with difficult issues. Changes to the nature of work were less associated with formal consultation in union-delegate workplaces. In this case, discussions with local workplace union delegates had the only significant positive association with this type of organisational change. Overall, discussions with union delegates and / or full-time officials appear to have had little effect on the introduction of organisational change in the Illawarra. Discussions with delegates had a weak negative effect on the introduction of new office technology but a strong positive effect on changing the organisation of non-managerial work. Discussions with union officials had no significant impact on any form of organisational change.

Australian Results

A similar analysis was conducted using the AWIRS 95 data with the results shown in Appendix II. Model III shows the relationship between consultation and organisational change for all workplaces and Model IV shows it for union-delegate workplaces only.

The Australian data showed a similar results to that of the Illawarra in relation to the introduction of new office technology. As in the Illawarra, formal meetings with employees was significant. Discussions in JCCs was also significant and negative but less so than for the Illawarra. However in Australia, discussions in special committees was the most significant positive impact on the introduction of new office technology while it was negative but insignificant in the Illawarra. In the Australian data, informal discussions with employees had a stronger positive association with the introduction of new plant and equipment than in the Illawarra while formal meetings with employees had a stronger negative impact in Australia. However discussions in JCCs had a highly significant positive impact on this type of organisational change in Australia. This implies that the introduction of new plant and equipment, which tends to be associated with secondary industry, is better negotiated formally within committees than directly with employees in Australia, a quite different result than from the regional data.

The introduction of workplace restructuring was highly significantly positively associated with formal meetings with employees, discussions in JCCs and special committees in the Australian data. This showed a very different impact from JCCs than in the Illawarra. Formal meetings, discussions in JCCs and special committees were all positively and significantly associated with the introduction of changes to the nature of work in Australia. This was similar to the Illawarra results except that discussions in special committees were not significant in that region.

The data for union-delegate Australia workplaces regarding the introduction of new office technology showed that formal meetings with employees were more significant than in all workplaces and JCCs became insignificant. Discussions with union delegates has a weak negative association in both areas. However, the Australian data shows a highly significant positive relationship between new office technology and discussions in special committees and a highly significant negative relationship with discussions with union officials, neither of which occurred in the Illawarra. There were also stronger associations between consultation and the introduction of new plant, machinery and equipment in Australia than in the Illawarra. The Australian data showed a highly significant positive relationship with discussions in JCCs but negative associations with formal meetings with employees. The impact of discussions with union delegates or officials was insignificant, as occurred in the Illawarra.

The Australian data showed highly significant positive relationships between workplace restructuring and discussions with union delegates and union officials and discussions in JCCs. In the Illawarra, the only significant association was with discussions in special committees. The Australian data also showed a strong positive relationship between changes to the organisation (nature) of work and discussions with union officials, JCCs and, to a lesser extent,

union delegates. Informal discussions and meetings with employees were also important. By contrast, discussions with union delegates was the most important factor in the Illawarra.

There were generally more significant and positive associations between the introduction of each type of organisational change and the various consultation mechanisms in Australia relative to the Illawarra for all workplaces. Informal discussions with employees affected by the changes were relatively unimportant in Australia as a whole, being significant only for the introduction of new plant and equipment and changes to the nature of work (delegate workplaces only). However, formal meetings were significant for all types of organisational change except workplace restructuring in delegate workplaces. Discussions in joint consultative committees were significant for all types of organisational change except the introduction of new office technology in delegate workplaces. Discussions in special committees were also significant for all organisational changes except the introduction of new plant and equipment and workplace restructuring in delegate workplaces.

Within delegate workplaces in Australia, discussions with union delegates and with full-time union officials was significant for all types of organisational change except the introduction of new plant and equipment. Discussions with union officials was generally more significant than with union delegates for each type of change. The impact of discussions with both types of union representatives was negative for new office technology but positive for workplace restructuring and changes to the nature of work. Committee mechanisms, which are likely to include union representatives or nominees in delegate workplaces, had a positive impact on the introduction of all types of organisational change where their impact was significant. Overall, discussions in special committees was less significant in delegate workplaces than they were for all workplaces. Discussions in JCCs were significant for all types of organisational change except new office technology in delegate workplaces, but were often less significant than for all workplaces.

CONCLUSION

Managers are involving workers in decisions to introduce organisational change to increase the speed with which such reforms can be introduced. Originally this process was associated with the introduction of new process technologies. More recently, workplace restructuring, changes to the organisation of work and the introduction of new office technologies have been the focus of attention. There has been interest in the research questions of whether the introduction of organisational change has been influenced by the types of participation procedures used and by the presence of unions in workplaces. It can be argued that if union activity is seen as resistant to organisational change, then (a) managers will prefer to use direct rather than representational forms of participation and (b) areas with high union activity will have lower levels of participation than average.

In this paper, these propositions were tested by comparing data from the general managers questionnaire of workplace industrial relations surveys undertaken in the Illawarra Region of NSW in 1996 with that from the 1995 Australian survey. The Illawarra is a traditional heavy industrial region with a reputation among the local business community for industrial militancy

which may cause local managers to avoid consulting on organisational change with union representatives.

Initial analysis of the survey results confirmed that the Illawarra had both a lower incidence of organisational change and an overall lower incidence of all types of consultation except informal discussions with employees than the Australian average. The data did not indicate that organisational change occurred less frequently in workplaces with union delegates. However, there were some indications that employees were more heavily involved in decisions to implement organisational change than union delegates in the Illawarra compared with the Australian average. Further, analysis of the types of discussions held for each type of organisational change suggested that the pattern of negotiation was different in the Illawarra to that in Australia as a whole. Illawarra managers appeared to use direct mechanisms such as informal or formal meetings with employees directly affected by the change more frequently than the Australian average. There was also a higher involvement of union officials in all types of change in the Illawarra, which would reflect the strength of unionism in the region. Overall, Illawarra managers regarded union delegates, union officials and employees as more resistant and less in favour of organisational change than the Australian average.

These results presented a relatively complex pattern of consultation processes and attitudes to worker and union involvement in organisational change within the Illawarra region. In order to provide more insight into these processes, the data was analysed using probit regression in order to isolate specific relationships between each type of change and the different consultative procedures as shown in Appendices I and II. They confirm that there were generally less significant associations between the introduction of each type of organisational change and each type of consultative procedure in the Illawarra than for Australia as a whole and this was particularly the case for union-delegate workplaces. However, it did not support the proposition that the use of direct negotiation mechanisms were associated with the introduction of organisational change in the region. While formal meetings with employees does have a positive association with the introduction of most types of organisational change, discussions in joint consultative committees and / or special committees were often more significant. The exception was the introduction of new plant and equipment. Associations between the introduction of organisational change and different types of consultation were even more sparse when union-delegate workplaces were analysed. These results thus do not support the proposition that union activity in the Illawarra had retarded the introduction of organisational change. Rather, it suggests that, with a few mostly positive exceptions, union activity has had relatively little impact on organisational change in the region.

By contrast, the Australian data shows more frequent and much stronger associations between the introduction of all types of organisational change and the different consultative procedures. There were strong, positive associations between the use of worker representative types of consultation and each type of organisational change for all workplaces. Direct procedures were generally less significant. Thus the Australian data supports the use of consultative procedures when introducing organisational change and indicates that representative forms have a positive and more significant impact than direct forms. The relationships were similar but slightly weaker for union-delegate workplaces. Discussions with union delegates and especially union officials or in joint consultative committees, which often include union

sponsored worker representatives in these workplaces, were the most significant forms of consultation in workplaces with an active union presence, except for the introduction of new office equipment.

Thus, while there is evidence from both the Illawarra and the Australian surveys that direct discussions with employees directly affected were held more frequently than discussions with worker representatives in committees or with union representatives for all types of organisational change, this analysis suggests that direct consultation procedures are less effective as a means of introducing change. Representative forms of consultation and participation are consistently more positively associated with change in the Australian survey data. The analysis did support the argument that a region with a heavy union presence such as the Illawarra had lower levels of effective consultation and participation in organisational change. This may reflect the local preference for direct discussions with employees rather than using representative forms of consultation. While there were relatively high levels of involvement by union delegates and union officials in discussions in the Illawarra, their impact on organisational change decisions, either positively or negatively, was relatively small. In the Illawarra, as in Australia, representative forms of participation had stronger positive associations with change than did direct consultation.

APPENDIX I

Relationship Between Introduction of Organisational Change and Type of Consultative Procedures / Illawarra - Logit Estimates

Organisational Change	New Office Technology	New Plant & Equipment	Workplace Restructure	Change Nature of Work
MODEL I- ALL WORKPLACES				
Intercept	-.17920 (-0.506)	-.50923 (-1.414)	-.55005 (-1.537)	-.70915 (-1.971)
Informal discussion With employees	-.19811 (-0.586)	.53476 (1.545)*	.33148 (0.975)	.34989 (1.030)
Formal meeting With employees	.70695 (1.939)**	-.20792 (-1.576)*	.48252 (1.336)*	.49165 (1.373)*
Discussion in Joint Consultative Committee	-.92426 (-2.313)**	-.19613 (-0.492)	-.66204 (-1.670)**	.77773 (1.949)**
Discussion in Special Committee	-.20621 (-0.503)	-.37323 (-0.884)	.92059 (2.177)**	.33713 (0.816)
MODEL II - UNION-DELEGATE WORKPLACES ONLY				
Intercept	-.43993 (-0.990)	-.44306 (-1.007)	-.86175 (-1.881)	-.37496 (-0.349)
Informal discussion With employees	-.29685 (-0.673)	.18778 (0.431)	.24809 (0.553)	.11363 (0.255)
Formal meeting With employees	.73230 (1.475)*	-.01230 (-0.025)	.42826 (0.861)	-.24907 (-0.506)
Discussion in Joint Consultative Committee	-.54803 (-1.080)	.37425 (0.769)	-.56408 (-1.088)	.48016 (0.936)
Discussion in Special Committee	.26101 (0.489)	-.04053 (-0.759)	1.12337 (2.081)**	.08863 (0.162)
Discussion with Union delegate	-.84101 (-1.431)*	-.04197 (0.073)	-.35932 (-0.580)	1.27754 (2.120)**
Discussion with Union official	.16402 (0.258)	-.16672 (-0.266)	.82691 (1.274)	.49431 (0.744)

* Significant at 90% level

** Significant at 95% level

*** Significant at 99% level

APPENDIX II

Relationship Between Introduction of Organisational Change and Type of Consultative Procedures / Australia- Logit Estimates

Organisational Change	New Office Technology	New Plant & Equipment	Workplace Restructure	Change Nature of Work
MODEL III- ALL WORKPLACES				
Intercept	-.04676 (-0.446)	-.61875 (-5.662)	.33416 (3.014)	-.45361 (-4.222)
Informal discussion With employees	.11960 (1.200)	.20232 (1.927)**	-.10933 (-0.996)	.11563 (1.130)
Formal meeting With employees	.17830 (1.663)**	-.32964 (-2.956)***	.55197 (4.865)***	.57059 (5.254)***
Discussion in Joint Consultative Committee	-.16051 (-1.422)*	.34005 (2.914)***	.49350 (3.805)***	.59317 (5.039)***
Discussion in Special Committee	.27341 (2.300)**	-.01495 (-0.121)	.23678 (1.752)**	.32997 (2.672)***
MODEL IV - UNION-DELEGATE WORKPLACES ONLY				
Intercept	-.12561 (-0.875)	-.67756 (-4.535)	.40652 (2.609)	-.41498 (-2.811)
Informal discussion With employees	.07589 (0.566)	.19245 (1.372)*	-.03334 (-0.218)	.24915 (1.786)**
Formal meeting With employees	.40803 (2.633)***	-.23054 (-1.439)*	.15839 (0.945)	.23497 (1.498)*
Discussion in Joint Consultative Committee	-.02132 (-0.145)	.53683 (3.516)**	.31056 (1.796)**	.44573 (2.881)***
Discussion in Special Committee	.34961 (2.293)**	.04181 (0.266)	-.03589 (-0.200)	.16643 (1.031)
Discussion with Union delegate	-.23132 (-1.418)*	-.08551 (-0.501)	.43276 (2.276)**	.23402 (1.383)*
Discussion with Union official	-.42442 (-2.533)***	-.20603 (-1.173)	.90102 (4.229)***	.72453 (4.026)***

- * Significant at 90% level
 ** Significant at 95% level
 *** Significant at 99% level

REFERENCES

- Alexander, Michael, Burgess, John, Green, Roy, Macdonald, Duncan and Ryan, Suzanne, "Regional Characteristics of Workplace Bargaining: Evidence from the Hunter Workplace Change Survey", in Len Pullin, Maureen Fastenau and Dennis Mortimer (eds), *Regional Employment Relations: Contemporary Research*, Centre for Employment Relations, University of Western Sydney, Sydney, pp. 161 - 184.
- Allen, Robert E. and Norman, Kathleen L. Van, 1996, "Employee Involvement Programs: the Noninvolvement of Unions Revisited", *Journal of Labor Research*, Vol. XVII, No. 3, Summer, pp.479 - 495.
- Cooke, P., Uranga M., Etxebarria, G. 1998, "Regional Systems of Innovation: An Evolutionary Perspective", *Environment and Planning A*, Vol. 30, pp. 1563-84.
- Craypo, C. and Nissen, B. (1993), 'Introduction' in C. Craypo & B. Nissen (eds) *Grand Designs: The Impact of Corporate Strategies on Workers, Unions and Communities*, ILR Press, New York.
- Deery, Stephen (1989), "Unions and Technological Change" in Bill Ford and David Plowman (eds), *Australian Unions: An Industrial Relations Perspective*, Second Edition, pp.269 - 285.
- Drago, Robert and Wooden, Mark, 1992, *Unions, Investment and Innovation: Evidence from the AWIRS*, National Institute of Labour Studies Inc., Flinders University of South Australia, Working Paper Series No. 125, November.
- Dunphy, D. C. and D. Stace (1990), *Under New Management*, McGraw Hill, Sydney.
- Eaton, Adrienne E. 1990. "The Extent and Determination of Local Union Control of Participative Programs", *Industrial and Labor Relations Review*, Vol. 43, No. 5, pp. 604-620.
- Gill, Colin, 1993, "The involvement of trade unions in quality: evidence from EC enterprises", *New Technology, Work and Employment*, Vol. 8, No. 2, September, pp. 122- 133.
- Glickman, N.J. and Woodward, D.P. (1988), 'The Location of Foreign Direct Investment in the United States: Patterns and Determinants', *International Regional Science Review*, Vol. 11, 137-154.
- Gough, Richard and Pullin, Len, 1996, "The Nature of Industrial Relations and Workplace Change in the Latrobe Valley: A Comparative Analysis", in Len Pullin, Maureen Fastenau and Dennis Mortimer (eds), *op. cit.*, pp. 135 - 160..
- Heller, Frank, Pusic, Eugen, Strauss, George and Wilpert Bernhard, 1998, *Organizational Participation: Myth and Reality*, Oxford University Press, USA.
- Hyman, Jeff and Mason, Bob, 1995, *Managing Employee Involvement and Participation*, Sage Publications, London.
- Lansbury, Russell D. (1991), "Managing Change in a Challenging Environment", Keynote address to *IPMA Human Resource Week Conference, Proceedings*, Sydney, pp. 16 - 28.
- Levie, Hugo and Ake Sandberg (1991) "Trade Unions and Workplace Technical Change in Europe", *Economic and Industrial Democracy*, Vol.12, No. 2, pp. 231 - 258.
- Machin, Stephen and Sushil Wadhvani (1991), "The Effects of Unions on Organisational Change and Employment", *The Economic Journal*, Vol. 101, July, pp. 835 - 854.
- Manders, A.J.C. (1995), 'Fact and Fiction: Wage Levels and the (Re)location of Production', *International Journal of Social Economics*, Vol. 22, 15-26.
- Markey, Raymond 1987, "Technological Change, the Unions and Industrial Relations", in G.W. Ford, J.M. Hearn & R. D. Lansbury (eds), *Australian Labour Relations: Readings*, 4th edition, Macmillan, Melbourne, pp. 298 - 317.

- Markey, Raymond and Wells, Andrew, 1997, 'The Labour Force in Wollongong', in J. Hagan and A. Wells (eds), *A History of Wollongong*, University of Wollongong Press, Wollongong.
- Markey, Raymond and Monat, Jacques, 1997, 'Introduction', in Raymond Markey and Jacques Monat (eds), *Innovation and Employee Participation Through Works Councils: International Case Studies*, Avebury, Aldershot, U.K., pp. 1-25.
- Markey, Raymond and Monat, Jacques, 1997, 'Conclusion', in Raymond Markey and Jacques Monat (eds), *Innovation and Employee Participation Through Works Councils: International Case Studies*, Avebury, Aldershot, U.K., pp. 411-437.
- Mitchell, Richard, Naughton, Richard and Sorensen, Rolf, 1997, "The Law and Employee Participation - Evidence from the Federal Enterprise Agreements Process", *The Journal of Industrial Relations*, Vol. 39, No. 2, June, pp. 196-217.
- Morehead, A., M. Steele, M. Alexander, K. Stephen and L. Duffin (1997), *Changes at Work: The 1995 Australian Workplace Industrial Relations Survey*, Longman, Melbourne.
- Nunes, Natalia, Geoffrey Crockett and Peter Dawkins (1992), *The Impact of Product Market Competition and Trade Unions on Organisational Change, Technological Change and Workplace Reform*, Discussion Paper, The Western Australian Labour Market Research Centre, Curtin University of Technology.
- Nunes, Natalia, Geoffrey Crockett and Peter Dawkins (1993), "The Impact of Competition and Trade Unions on Workplace Reform and Organisational and Technological Change", *The Australian Economic Review*, 2nd Quarter, pp. 71 - 88.
- Ogden, Max (1991), "Organisational Renewal - A Union Perspective", Paper presented to the 1991 ANZAAS Congress, Adelaide, October.
- Porter, M. 1996, "Competitive Advantage, Agglomeration Economies and Regional Policy", *International Regional Science Review*, Vol. 19, pp. 85-94.
- Poole, Michael and Mansfield, Roger, "Patterns of Continuity and Change in Managerial Attitudes and Behavior in Industrial Relations, 1980-1990", *British Journal of Industrial Relations*, Vol. 31, No. 1, March, pp. 11 - 34.
- Rogers, Mark, 1998, *Management, Organisational and Technological Change in Australian Workplaces: Evidence from the AWIRS Data Sets*, Working Paper No. 11/98, Melbourne Institute of Applied Economic and Social Research, Melbourne.
- Russell-Walling, E. (1993), 'Europe's Labor Pains', in *International Business*, Vol. 6, 20-22.
- Sako, Mari, 1998, "The nature and impact of employee 'voice' in the 'European car components industry'", *Human Resource Management Journal*, Vol. 8, No. 2, pp. 5-13.
- Sorensen, T. 1998, "Interfacing Regional Development Theory and Practice", *The Australasian Journal of Regional Studies*, Vol. 8, pp. 39-48.
- Taskforce on Regional Development, 1993, *Developing Australia: A Regional Perspective. A Report to the Federal Government by the Taskforce on Regional Development* (Kelty Taskforce), Canberra.
- US Dept. of Labour, 1995, "Employee Participation and Labor-Management Cooperation in American Workplaces", *Challenge*, September - October, pp. 38 - 46.
- van Liemt, G. (1992), 'Introduction' in G. van Liemt (ed) *Industry on the Move: Causes and Consequences of International Relocation in the Manufacturing Industry*, International Labour Office, Geneva, pp. 3-24.

Vaughan-Whitehead, D. (1992), 'The Internal Market and Relocation Strategies', in D. Marsden (ed), *Pay and Employment in the New Europe*, Edward Elgar, Hants.

Wrathall, Jeff, 1996, "Brownfields Cultures in Greenfields Organisations: Regional Influences on Organisational Cultures", in Len Pullin, Maureen Fastenau and Dennis Mortimer (eds), *op. cit.*, pp.79 -98.