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The Impact of Different HRM Regimes on Labour Productivity: National Results and a Regional Perspective

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THE IMPACT OF DIFFERENT HRM REGIMES ON LABOUR PRODUCTIVITY: NATIONAL RESULTS AND A REGIONAL PERSPECTIVE

ABSTRACT

This paper uses AWIRS 95 and IRWIRS 96-7 data to test whether workplaces which used 'soft' versus 'hard' Human Resource Management (HRM) policies an practices experienced significant differences in labour productivity improvements. Generally, the results support the proposition that management attitudes, policies and practices which aim to develop workforce skills, commitment and motivation were positively associated with improvements in labour productivity. Very few 'hard' practices other than performance pay had the same effect. EEO/AA and maternity leave policies were strongly correlated with improved productivity.

THE IMPACT OF DIFFERENT HRM REGIMES ON LABOUR PRODUCTIVITY: NATIONAL RESULTS AND A REGIONAL PERSPECTIVE

INTRODUCTION

Australian organisations were subject to severe pressures for change in the last decades of the 20th century. The private sector has faced increasing international market competition while the public sector has endured a prolonged reform process associated with the 'small government' philosophy of the Howard Liberal Government. Both processes have forced organisations to undertake changes involving reduced work forces and the introduction of new technologies aimed at improving labour productivity (Hodgkinson 2001). Within this process, employee management regimes have also had to change. Some organisations have adopted a sophisticated, coherent set of employment policies and practices, while others use a more ad hoc approach, responding to pressures as they arise but without any consistent employment policy framework.

There has been an increasing interest in the employee relations literature on the strategic role which human resource management (HRM) plays within organisational change. HRM is defined as differing from other personnel management approaches because it emphasises "the link between managing human resources and business strategy" and therefore has an "emphasis on the integration of [employment] policies and practices with each other as well as with business strategy" or the development of competitive advantage. A second feature of HRM strategies is that line managers play a key role in the management of human resources and thus the attitudes of senior management towards employee relations is a key variable in determining which regimes will be found in different organisations (Sisson 1994, pp.8-9).

Given the link between HRM and business strategy, it is expected that effective regimes will have a direct impact on an organisation's 'bottom line', particularly through improved productivity, improved quality of work life and by ensuring legal compliance (Kramar, et al. 1997). More recently, HRM regimes have been discussed in terms of

‘soft’ versus ‘hard’ strategies. The dividing line between the two approaches is inexact. Soft HRM strategies are taken to be more collectivist in philosophy and thus include a role for union representatives in consultation and participation processes. They are also seen to be more ‘people centred’ and hence attempt to achieve the organisation’s goals through increasing the commitment and competence of its workers. Soft HRM organisations would be expected to simultaneously pursue the objectives of improved productivity and improved quality of work life (Sisson 1994). This approach involves a greater use of teams, total quality management techniques, direct involvement of workers in decision-making and investments in human capital to improve skills and multi-skilling in workers (Gollan and Davis 2001).

Hard HRM strategies are more individualistic and hence have less tolerance of union participation. Employees are viewed more as a factor of production than a competitive asset so that employment policies and practices tend to focus on cost reductions, flexible or more insecure employment and the use of individualised payment systems to improve organisational performance (Sisson 1994, Hamberger 1995, Deery and Walsh 1999). Some analysts, however, anticipate that the ‘hard’ or individual approach would result in higher absenteeism and labour turnover but lower levels of strikes and stop-works and lower investments in human capital (Sisson 1993, Deery and Walsh 1999) than the ‘soft’ approach. It is also suggested that the use of individual mechanisms will be significantly higher when management is opposed to the unionisation of their workplace (Gilson and Wager 1996).

A number of case studies have demonstrated the beneficial effects of increased employee involvement in strategic business decision-making (see Gollan and Davis 2001, Scott-Ladd 1999, Simmons and Lansbury 1996, Mealor 1996 for examples). There is thus a temptation to demonstrate that the relationship holds over a broader range of data. The Australian Workplace Industrial Relations Surveys (AWIRS) appear to offer the opportunity to test this proposition more rigorously. A number of studies of the relationship between workplace performance and different employment relations regimes have been undertaken by industrial relations and labour economists. The relationship

between the use of joint consultation mechanisms and four indicators of workplace performance - improvements in workplace productivity, making it easier or quicker to introduce change, improvements in management-employee relations, and improvements in product or service quality – was tested using the 1990 AWIRS Employee Relations Management Questionnaire by Alexander and Green 1996. Hawke and Drago 1998 tested the relationship between enterprise agreement coverage and various performance indicators and Wooden 2000 tested the proposition that the use of enterprise agreements was associated with increased productivity using the General Management Questionnaire from the 1995 AWIRS survey. The relationship between the use of direct and representative forms of consultation and the introduction of four types of organisational change was tested by Hodgkinson 2001 using results from the General Management Questionnaire of the 1995 AWIRS and the companion 1996-97 Illawarra Regional Workplace Industrial Relations Survey (IRWIRS).

Overall, while correlations between consultation mechanisms and improved performance were found (for example in Alexander and Green 1996 and Hodgkinson 2001), they were not always consistent and implied that other factors also significantly influenced whether consultations were effective or not. The studies by Hawke and Drago 1998 and Wooden 2000 did not find significant relationships between enterprise agreement coverage and productivity improvements. However, it was noted that the AWIRS data format was not ideal for examining such relationships due to the ordinal ranking and subjective nature of many of the results and the probable presence of indirect and feedback relationships among the variables. Wooden concludes that the analysis does not allow us to reject the hypothesis that enterprise bargaining has promoted labour productivity. The cross-sectoral nature of the AWIRS data base is also conducive to indeterminate results.

In this study a further attempt is made to analyse the relationship between employment policies and practices and labour productivity using the 1995 AWIRS database. Some comparative results from the 1996-97 IRWIRS study will also be presented for the Illawarra Region. In order to extend the previous studies, the involvement of workers in

organisational strategies is analysed in terms of the use of ‘hard’ and ‘soft’ HRM strategies as well as the use of different consultation and participation mechanisms.

THE INCIDENCE OF DIFFERENT HRM REGIMES IN AUSTRALIAN AND ILLAWARRA WORKPLACES

In this study variables associated with these two approaches to employee relations are drawn from the AWIRS95 and IRWIRS (1996-97) General Managers and Employee Relations Managers Questionnaires. They are tested against evaluations of labour productivity improvements drawn from Question D.11 of the General Managers questionnaire: “How would you describe labour productivity compared with two years ago?”

‘Soft’ HRM Characteristics:

Firms utilizing ‘soft’ HRM practices to improve productivity would be expected to display the following characteristics developed from the AWIRS 95 questionnaires.

- Higher rates of employment stability (Q.B1) – Employees Relations Management Questionnaire (ERM)
- Lower levels of turnover (Q.A10) and absenteeism (Q.A6) – Workplace Characteristics Questionnaire (WC)
- Higher levels of supervisor training in employee relations (Q.A9) and general staff training (Q.C4) – ERM
- Existence of policies on EEO (Q.L1), paid maternity leave (Q. K4, K5), OH&S (Q.J1) – ERM
- High rating to management- employee relationships (Q.E4), focus on quality improvements (Q.E1) and human resources (Q.E1) in corporate strategy – General Managers Questionnaire (GM)
- Provision of information to staff (Q.D24), employee involvement structures in place (Q.A17, D7, D30) – ERM
- Employee orientated objectives for workgroups (Q.D11), JCCs (Q.D19) – ERM

- Delegation of authority to committees (Q.D22) – ERM
- Workers express support (Q.42) and trust (Q.42) for management – Employees Questionnaire (EQ).

'Hard' HRM characteristics

Firms utilizing 'hard' HRM practices to improve productivity would be expected to display the following characteristics developed from the AWIRS 95 questionnaires.

- Higher than average use of outworkers, contractors, and agency workers (Q.11) – WC
- High levels of dismissals (Q.B16), downsizing involving compulsory dismissals (Q. E1, E4), industrial action (Q.H1) – ERM
- Cultivate a direct relationship with employees (Q.E1) – GM
- Higher use of direct communications methods with employees (Q.D1) – ERM
- Higher proportion of issues negotiated individually with employees (Q.P16) – ERM
- Higher proportion of employees on individual contracts (Q.G8), use of performance related pay (Q.M1, M3), share-ownership schemes (Q.M5,M6) – ERM
- Use of bonus and incentives schemes (Q.19,29) – EQ.

In this study, only the variables from the General Management and Employee Relations Management surveys are tested.

Insert Table 1 here.

Both 'soft' and 'hard' practices are found in Australian workplaces as shown in Table 1. The lack of use of individual contracts and the high usage of training schemes are indicative of 'soft' practices. However, the low use of performance-based pay schemes, share ownership or bonus schemes may result from neglect rather than a decision to avoid individual performance incentives. The preference for 'hard' practices is reflected in the low presence of quality circles, although other participation mechanisms exist in just under half of workplaces. The preference for hierarchical management line meetings rather than direct meetings between employees and senior management is also indicative

of ‘hard’ HRM practices. The dominance of other ‘soft’ practices such as existence of EEO/AA policies, OH&S policies and the low level of dismissals and downsizing by compulsory redundancy may result from institutional factors rather than a real preference by managers for such practices.

Employment practices in the Illawarra were similar to Australia as a whole but generally indicate a lower overall use of HRM mechanisms. There was less use of employment-based pay schemes and share-ownership options for non-managerial employees. There was also less use of regular meetings down the management line. These factors may reflect a ‘soft’ HRM approach although their lower usage might also result from a failure by Illawarra managers to implement HRM policies and practices. EEO/AA, maternity leave and, to a lesser extent, OH&S policies were less likely to be found in Illawarra workplaces. Illawarra workplaces had more downsizing, including compulsory redundancy and a higher proportion of workplaces which negotiated pay rates (but not work practices) directly with employees. These results are more consistent with a ‘hard’ HRM approach. Thus, as in Australia, elements of both regimes occurred in the Illawarra.

Workgroups, quality circles, joint consultative committees and ad hoc taskforces are the most common forms of employee consultation and participation mechanisms in Australian workplaces. As shown above, these can be associated with either ‘soft’ or ‘hard’ HRM practices. Thus, it is necessary to look at the objectives of these institutions in order to determine how they are associated with different employee management approaches.

In this analysis, some comparisons are made with the Illawarra regional survey. Earlier studies (Hodgkinson 2001) indicated that the usage of participation mechanisms was lower in that region than in Australia as a whole. Semi-autonomous workgroups were found in 33.8 percent of Illawarra workplaces, quality circles in 16.8 percent, joint consultative committees in 28.0 percent and ad hoc taskforces in 28.5 percent of workplaces compared with (from Table 1) 43%, 16%, 42% and 46% respectively in

Australia as a whole. This confirms the earlier finding that participation mechanisms were used less often in this region. Consequently and unlike Australia, 'hard' HRM practices predominate in terms of consultation in the Illawarra.

Insert Table 2 here

The ranking of the objectives for establishing work groups / quality circles in Table 2 show a predominance of corporate orientated factors over employee orientated factors. The objective of increasing productivity / efficiency / performance is, of course, the ultimate outcome of both HRM regimes. In 87 percent of cases, the use of these mechanisms were thought to have improved workplace performance. Objectives such as improving product / service quality and increasing client satisfaction are more consistent with the 'hard' approach where workers are viewed as production inputs. However, objectives such as improving employee responsibility / autonomy, increasing employee motivation and commitment and increasing job satisfaction are more aligned with the indirect or 'soft' approach to performance improvement where employees are regarded as assets who are major contributors to the firm's success. Despite the lower incidence of work groups / quality circles in the Illawarra, the objectives for those that did exist followed a similar pattern to Australia as a whole. Indeed, 'soft' objectives focused on developing the workforce occurred slightly more frequently.

Insert Table 3 here

The ranking of objectives for establishing joint consultative committees and taskforces shown in Table 3 contain a mixture of economic and employee development factors. If improving efficiency or productivity is taken as applying to both approaches, then objectives such as improving communications, increasing job satisfaction and employee moral and reducing disputes occur more frequently and are associated with the 'soft' perspective of viewing employees as company assets. However, economic objectives such as assisting in implementing change, improving quality of service or product and helping to introduce new technology are also important and suggest these mechanisms

are also used within the ‘hard’ perspective where workers are seen as factors of production. The incidence of joint consultative committees and ad hoc taskforces were considerably lower in the Illawarra than Australia as a whole. Again the objectives of these followed a similar pattern although the objectives of improving efficiency or productivity and of increasing job satisfaction / employee moral were less common.

This analysis suggests that participation mechanisms are used to achieve both ‘hard’ economic and ‘soft’ employee development goals. Thus a simple analysis based on whether participation mechanisms are used or not may not provide much enlightenment as to whether different approaches to employee management result in improved economic performance. It is thus necessary to look more closely at the impact of management attitudes, policies and practices to employee management in each workplace when assessing their impact on workplace performance.

STATISTICAL RESULTS

As in all other studies applying multivariate regression analysis to AWIRS data, this study used the logit model from Probit analysis and t-ratios to test for significance at the 90%, 95% and 99% confidence levels. The Probit analysis undertaken here requires data to be coded on a two scale 0 or 1 measure. Only those variables where enough workplaces had both ‘soft’ and ‘hard’ characteristics to provide meaningful results are included in the regressions. Variables where there were significant numbers of missing values (no response) have also been excluded. Thus not all the variables shown in Table 1 have been included in the regressions.

As conclusively demonstrated in Wooden 2000 using data developed by the Productivity Commission (Parham 1999), Australia has experienced a significant and unique improvement in labour productivity commencing around 1993, the timing of which intuitively implicates industrial relations reform. Wooden’s study, although it focuses on a different question to here, is instructive in highlighting some of the weaknesses which affect the reliability of the results when using the 1995 AWIRS, and by implication the

IRWIRS data. However, it is the only available database which provides workplace level performance data and industrial relations variables.

As an attitudional survey, results reflect the managers' subjective measures of performance rather than objective performance data. As such, it is subject to measurement errors and response bias. It also collects data on a five point categorical scale which often constrains responses to the middle rather than the polar options. In this paper, only strong polar responses have been used to calibrate the 0 / 1 scale for the determining variables in an attempt to overcome this problem. More particularly, it is suggested that reform or change may be introduced more frequently into the worse performing rather than the best practice workplaces (Wooden 2000). This possibility must be considered when interpreting the following results.

TEST A – Relationship between Performance Indicators and Management Attitudes

The General Management Questionnaire provides the easiest framework in which to test the proposition that different HRM regimes have a differential impact on labour productivity compared to two years prior.

The propositions can be stated as 'Labour productivity was a lot higher than two years ago' as a function of:

- *'Very good' rating to managerial-employee relationships (Q.BE4) – expected sign positive;*
- *'Strongly agree' that quality improvements are more important than reducing labour costs (Q.BE1e) – expected sign positive;*
- *'Strongly agree' that this workplace make considerable investments in human resources (Q.BE1f) – expected sign positive;*
- *'Strongly agree' management prefer to deal directly with employees rather than through trade unions (Q. BE1b) – expected sign negative.*

Insert Table 4 here

The results from the test that the consequences of different managerial attitudes towards HRM impact on productivity improvements are shown in Table 4. For Australia, strong positive correlations were found between improved labour productivity and ranking management – employee relationships as very good and management strongly agreeing that it provided considerable resources to human resources management. These results support the argument that management taking a positive attitude to supporting their labour force, consistent with 'soft' HRM practices are positively related to improving labour productivity. Although statistically insignificant, the signs for the other variables are also consistent with the argument that 'soft' HRM practices are associated with productivity improvement.

The relationship between HRM practice and improvements in productivity is much weaker in the Illawarra. There was a weakly significant positive relationship between management agreeing that workplace quality improvements were to be preferred over labour cost reductions and improved productivity. There was also a weakly significant negative relationship between management saying it would prefer to deal directly with employees (a 'hard' HRM attitude) and improvements in labour productivity. Both these results thus support the proposition that managerial attitudes supporting the development of their workforce are associated with improvements in labour productivity. The other variables were insignificant in the Illawarra, with one sign consistent with the 'soft' HRM approach but the other negative and so supporting the 'hard' approach.

TEST B – Relationship between Employment Policies and Practices and Performance Indicators.

This test uses the same performance indicators as Test A, as a function of:

- *Employment stability where more than 3 percent of work force has worked here for more than 10 years (Q.CB1g) – expected sign positive.*

- *All or most supervisors trained in employee relations matters (Q.CA9) – expected sign positive.*
- *Policies on EEO (Q.CL1), Maternity leave (Q.CK4), and OH&S (Q.CJ1) in place – expected sign positive.*
- *No employees terminated for reasons other than redundancy (Q.CB16) – expected sign positive.*
- *No strikes at workplace in past year (Q.CH1a) – expected sign positive.*
- *No workers on individual contracts (Q.CG8) – expected sign positive.*
- *No non-managerial employees receive performance-based payments (Q.CM1) – expected sign positive.*
- *No share-ownership schemes for all employees in place (Q.CM5) – expected sign positive.*

Results from the modeling should show positive signs to indicate 'soft' HRM practices impact on performance and negative signs to indicate that 'hard' HRM practices are impacting on performance. The analysis for Australia as a whole and the Illawarra are provided in Table 5 below.

Labour productivity improvements are strongly associated with a number of 'soft' HRM policies and practices for Australia as a whole. There are very strong correlations between having improved labour productivity and having EEO and maternity leave policies in place, while there was a weaker but still positive correlation with having OH&S policies in place. There is also a significant correlation between having had no strike over the past year and improved productivity and a weakly significant positive correlation with having no non-managerial employees on individual contracts, both supporting the 'soft' HRM approach. The only significant negative correlation was between having no non-managerial employees receiving performance-based payments and improved labour productivity. This last finding suggests that performance-based

payments do lead to improved labour productivity as would be predicted by the 'hard' HRM approach[1].

The majority of the results from the Australian data support the hypothesis that 'soft' HRM policies and practices are associated with improvements in workplace labour productivity. It is also interesting to note, given the current debate on the introduction of broader maternity leave entitlements, the strong positive correlations between having EEO and maternity leave policies in place and improved labour productivity. The assumption here is that business would be unlikely to provide maternity leave benefits if they did not believe it would result in improved labour productivity.

As has been found previously, the results for the Illawarra are weaker and more ambiguous than for Australia. Nevertheless, the majority of variables where significant correlations were found have positive signs and thus support the 'soft' HRM approach. The strongest significant positive association was between improved labour productivity and having had no strikes in the past twelve months. This is interesting in that the Illawarra survey, unlike AWIRS 95, was undertaken as the time of the introduction of the new Workplace Relations Act and associated industrial reforms which intensified industrial conflict during the time the fieldwork was undertaken. It was thus expected that the Illawarra would show an inflated pattern of industrial disputation compared with AWIRS 95 (Markey, et al., 2001, p.13). As shown in Table 1, the percentage of workplaces which had had a strike over the past twelve months was slightly higher in the Illawarra (17.5%) compared to Australia (12.3%). This result thus suggests that utilizing 'soft' HRM practices may help isolate workplaces from strike action.

Other 'soft' HRM variables which showed a weaker but positive correlation with labour productivity in the Illawarra were employment stability and having no non-managerial

[1] Performance pay can take the form of merit payments or bonuses related to the performance of an individual, which are clearly 'hard' HRM practices or bonuses geared to the performance of a groups such as 'gain-sharing' schemes which may be associated with 'soft' HRM practices including quality circles or workgroups (Kessler 1994). The AWIRS question include all these mechanisms and thus it is not possible to distinguish what HRM practices are being reflected. Thus, in this study, performance pay has been

employees on share-ownership schemes. The Illawarra had a much higher percentage of employees which had worked in the same workplace for over 10 years than Australia. There was a weak negative association with having had no terminations other than by redundancy which suggests that those workplaces which had terminated workers had also improved labour productivity, a 'hard' HRM practice.

Insert Table 5 here

Generally, the majority of signs for employment policy and practice and the significant variables found in the Illawarra support the hypothesis that 'soft' HRM practices are associated with improved labour productivity. However, the smaller number and weaker levels of significance in this region suggest that Illawarra workplaces are less likely to associate either HRM practice with improved labour productivity than found for Australia as a whole. Further, both the EEO and maternity leave variables were not significant in the Illawarra.

TEST C – Relationship between Labour Productivity and Workplace Participation Mechanisms

The results of the test as to whether workplace participation mechanisms were in place had an impact on improved labour productivity are shown in Table 6. All the results for the Illawarra were insignificant. However, weak significant positive correlations were found in Australia between improved labour productivity and having work groups and taskforces or ad hoc committees in place and a very strong positive correlations existed with having quality circles.

Insert Table 6 here

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assumed to be associated with 'hard' or individualistic HRM practices, although this was not necessarily so in all cases.

However, as discussed above, the objective of utilizing worker participation may be to either improve workplace performance / efficiency / productivity by increasing the work effort directly (hard HRM) or to achieve these goals indirectly by improving the motivation of workers (soft HRM). The impact of these different objectives behind the use of workgroups or quality circles on improvements in labour productivity is shown in Table 7.

Insert Table 7 here

Again, no significant relationships were found in the Illawarra. However, for Australia as a whole, strongly significant positive relationships were found between improved labour productivity and 'soft' HRM objectives such as team-building, increasing employee motivation and commitment and increasing job satisfaction. A weakly significant negative correlation was however found between the objective of increasing employee responsibility and autonomy and improved labour productivity. No significant relationships were found for the 'hard' HRM objectives.

It was not possible to test the relationships between the different objectives for establishing joint consultative committees or taskforces or ad hoc committees in Australia due to data difficulties. However, in the Illawarra, one weakly significant negative relationship was found between the objective 'to assist in implementing change' and improved labour productivity.

CONCLUSIONS

This paper focuses on the proposition that employee consultation and participation practices are positively related to improved labour productivity. However, due to institutional factors reflecting the influence of industrial relations legislation and trade union presence, many workplaces will utilize participation mechanisms without necessarily embracing the philosophy that employee consultation and participation results in improved workplace performance. To delve below the surface of the institutional

approach, this study focuses on management attitudes, policies and practices towards their workforces in order to determine whether these have a differential impact on performance in the form of improved labour productivity.

These attitudes, policies and practices have been categorised into two human resource management (HRM) typologies: ‘soft’ and ‘hard’. Soft HRM practices are associated with a managerial philosophy that a workplace’s workforce constitutes a strategic asset which needs to be developed as a source of competitive advantage for the business. Hard HRM practices reflect the managerial philosophy that the workforce should be viewed as a cost of production such that practices generally aimed at reducing labour costs or increasing labour effort are the main means of improving workplace performance, although these may be implemented through worker consultation and participation mechanisms. In this study, attitudes, policies and practices associated with both approaches are assumed to have the objective of improving labour productivity. The study attempts to assess whether observable differences are achieved depending on which HRM approach is used.

Of the various workplace indicators available, improved labour productivity is probably the one most amenable to human resource management practices. Thus some causal relationship between differences in HRM practices and improvements in labour productivity could be expected. The results for Australia as a whole strongly support the proposition that ‘soft’ HRM policies and practices have a positive impact on improved labour productivity. The presence of all participation mechanisms other than joint consultative committees were correlated with improved productivity. The proposition that senior management taking a positive attitude to supporting their workforce is associated with improved labour productivity is supported from the results shown in Table 4. Further, there are significant positive correlations between implementing ‘soft’ HRM policies and practices and improving labour productivity as shown in Table 5.

The results from the Illawarra survey were much less conclusive in that fewer significant results were found. Nevertheless, the majority of those that did occur also support the

proposition that 'soft' HRM attitudes, policies and practices are associated with improved labour productivity. The predominance of insignificant results may indicate that Illawarra managers have neglected HRM strategies as a means of improving workplace performance. Given that, as discussed in Markey, et al. 2001, Illawarra workplaces generally performed below that of Australia, a greater use of HRM strategies and particularly 'soft' policies and practices could help improve regional economic performance.

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Table 1: Indicators of HRM Practices
(% of workplaces with 'soft' HRM practices)

Indicator (soft, hard)	*Australia*	*Illawarra*
% who have worked here more than 10 years[2]	31.1	58.1
% workers on individual contracts (Nil, any)	71.0	73.9
Use of performance-based pay (no, yes)	63.9	57.7
Share ownership options for employees (no, yes)	82.5	76.8
Semi-autonomous work groups (yes, no)	43.0	33.8
Quality circles (yes, no)	16.0	16.8
Joint Consultative Committees (yes, no)	41.6	28.0
Taskforces or Ad hoc committees (yes, no)	45.9	28.5
Supervisors trained in employee relations (all or most, some or none)	37.5	40.3
Training scheme in place (yes, no)	65.2	72.9
Bonus scheme in place (no, yes)	63.3	na
Regular meetings down management line (no, yes)	23.1	31.5
Employees meet with senior management (yes, no)	38.2	37.5
Existence of policy on EEO/AA (yes, no)	74.5	54.2
Existence of paid maternity leave (yes, no)	34.2	27.8
Existence of OH&S policy (yes, no)	84.5	81.9
Dismissals (zero, any)	55.8	63.7
Downsizing with compulsory redundancy (no, yes)	62.1	70.3
Industrial action by strikes (no, yes)	87.7	82.5
Negotiate directly with employees on		
• pay rates (no, yes)	48.6	54.4
• work practices (no, yes)	46.7	47.3

[2] In Australia, 'soft' HRM workplaces are defined as those having above the national average of 3% of the workforce. In the Illawarra, due to coding differences, they are defined as having 11% or more of the workforce.

Table 2: Objectives of Work Groups / Quality Circles (% yes)

Objective	*Australia*	*Illawarra*
To increase productivity/ efficiency / performance	64.2	61.3
To increase employee responsibility / autonomy	40.9	46.9
To improve product / service quality	40.8	43.6
To increase client satisfaction	34.1	39.1
To increase employee motivation / commitment	33.2	39.2
To increase job satisfaction	30.5	31.6
To improve communication	29.9	25.5
Important for team building	27.7	29.5
To enhance skill levels	24.8	30.3

Table 3: Objectives of Joint Consultative Committee / Taskforces (% yes)

Objective	*Australia*	*Illawarra*
Improve communications	56.1	51.6
Improve efficiency or productivity	50.4	37.1
Assist in implementing change	34.2	36.2
Increase job satisfaction / employee moral	32.8	26.8
Improve quality of service or product	29.0	30.4
Reduce disputes	22.2	18.9
Help introduce new technology	14.9	14.6
Reduce labour turnover	10.4	9.5

Table 4: Impact of Alternative Managerial Attitudes on Labour Productivity

Indicator	*Australia*	*Illawarra*
Intercept	-0.894 (-11.243)	-1.216 (-3.707)
Management- employee Relationship	0.259 (2.574)***	-0.096 (-0.268)
Quality improvements more important	0.087 (0.795)	0.646 (1.715)*
Investment in human resources	0.406 (3.652)***	0.375 (0.953)
Prefer to deal directly with employees	-0.004 (-0.041)	-0.686 (-1.688)*

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

Table 5: Impact of Employment Policies and Practices on Labour Productivity

Indicator	*Australia*	*Illawarra*
Intercept	-1.514 (-5.586)	-3.794 (-3.339)
Employment stability	-0.102 (-0.914)	0.556 (1.400)*
Supervisor trained In ER	0.020 (0.191)	0.274 (0.712)
EEO policies	0.551 (3.777)***	0.559 (1.272)
Maternity leave	0.292 (2.675)***	-0.123 (-0.264)
OH&S policies	0.302 (1.625)*	-0.137 (-0.254)
No terminations	-0.009 (-0.084)	-0.611 (-1.590)*
No strikes	0.338 (2.121)**	1.641 (2.500)***
No individual contracts	0.133 (1.138)*	0.304 (0.661)
No performance based payments	-0.305 (-2.806)***	0.032 (0.080)
No share ownership schemes	-0.097 (-0.711)	0.796 (1.370)

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

Table 6: Impact of Presence of Participation Mechanisms on Labour Productivity

Mechanism	*Australia*	*Illawarra*
Intercept	-0.818 (-6.149)	-1.164 (-2.138)
Workgroup	0.164 (1.464)*	0.480 (1.014)
Quality circle	0.389 (3.015)***	-0.392 (-0.791)
Joint consultative committee	-0.093 (-0.834)	-0.115 (-0.249)
Taskforce or ad hoc committee	0.146 (1.291)*	0.410 (-0.023)
None of the above	-0.818 (-0.391)	0.047 (-0.076)

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

Table 7: Impact of Objective for Establishing Workgroup or Quality Circle on Labour Productivity

Objective	Australia	Illawarra
Intercept	-0.791 (-6.912)	-1.101 (-2.729)
Direct objectives		
Increase customer / client satisfaction	0.057 (0.358)	-0.322 (-0.387)
Improve quality of product / service	-0.152 (-0.982)	0.208 (0.343)
Indirect objectives		
Increase employee responsibilities / autonomy	-0.244 (-1.568)*	0.550 (0.794)
Team-building	0.339 (1.802)**	-0.012 (-0.017)
Increase employee motivation and commitment	0.465 (2.786)***	-0.517 (-0.540)
Enhance skill levels	0.179 (0.973)	0.280 (0.345)
Increase job satisfaction	0.353 (1.977)**	0.032 (0.033)
Improve communication	-0.097 (-0.558)	-0.818 (-0.719)

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

BIOGRAPHY

Ann Hodgkinson is an Associate Professor in Economics at the University of Wollongong. She has a doctorate from the University of Sydney. Her main areas of research are regional development, industrial organisation and labour market studies. She has been involved in a number of industrial relations projects including the Illawarra Regional Workplace Industrial Relations Survey and the Workers Participation Study Group of the International Industrial Relations Association.