"SHAFTED": Labour Productivity and Australian Coal Miners

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Coal mining provides by far Australia's largest single source of export income, totalling $A 9.5 billion in 1997-1998 (Waring and Graham: 1998:4). However, the industry has suffered from a decline in profitability in recent years as a result of increasing competition and falling coal prices. In light of these difficulties, and the importance of coal mining to the economy, the coal industry attracts a good deal of comment in the policy debate over industrial relations change. A number of studies have sought to explain the industry's apparent poor performance and make recommendations to improve its competitive position. In 1994, the Australian Coal Industry Council (ACIC) commissioned a major study into all aspects of the industry. This study devoted considerable attention to industrial relations change with particular emphasis placed on the need for developing enterprise bargaining agreements (ACIC, 1994). More recent studies include the Productivity Commission's (1999) Report on the Australian Black Coal Industry and the National Institute of Labour Studies (NILS) report on labour productivity (Hawke and Robertson, 1999). Like the ACIC study, these groups also stressed the need for changes to industrial relations traditions and existing work practices as a means of improving competitiveness.

The purpose of this paper is to assess the value of the recent Productivity Commission and NILS studies as contributions to the policy debate on

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industrial relations change in the industry. It argues that these contributions unfairly attribute the major portion of the responsibility for the industry's apparent poor performance to employees and their productivity. The paper contends that a number of other factors need to be examined in order to provide an adequate explanation for the industry's productivity and profitability. These factors include technology, geology, managerial practice, the nature of the product market and the effect of price reductions.

The paper begins by explaining the industry's industrial relations traditions. Section two then sets this analysis against the recent difficulties facing the industry. Together, these sections illustrate the influence of the market on the industry's pattern of industrial relations. It is argued that the failure to understand the relationship between the market and industrial relations shapes the recommendations of those who explain the industry's declining performance purely in terms of labour productivity. Section three outlines the major findings of the Productivity Commission and NILS reports and analyses their deficiencies. Section four then provides alternative explanations for the industry's current economic difficulties.

Industrial Relations Traditions

For industrial relations researchers, the most notable feature of the coal industry has been its high level of industrial disputation. A number of researchers have examined this phenomenon. In their famous thesis, Kerr and Siegel (1954) explained the miners' high strike propensity as a feature of the industry's closed occupational communities. Closed occupational communities, they argued, produce relatively high levels of labour militancy. A more popular explanation of the industry's strike propensity has been the nature of the product market (eg. Mauldon, 1929; Walker, 1970; Beaumont, 1975; Hince, 1982; Fisher, 1987). Historically, fluctuations in supply and demand for coal provided a background for major industrial disputes and conditioned the strategies of the parties. In the early years of production, piece-work payments allowed employers to adjust the supply of labour to suit the prevailing product market conditions. Employers also stockpiled coal to strengthen their bargaining

position against attempts by employees to initiate industrial action during periods of high product demand (Gollan, 1963). To combat the tendency of the piece-work system to provide intermittent employment, employees organised local union 'lodges' through which they sought to control the pace of work to limit production (Hagan and Fisher, 1973). When it suited them, employers also experimented with limiting production by establishing collusive arrangements, designed to fix output and prices (Gollan, 1963; Bowden and Barry, 1998).

The industry's boom/bust cycle of production provided the basis for long-term industrial strategies. Control of production remained a fundamental objective of organised labour right up to 1988 when the industry's employers won the right to continuous production (see below). In the 1950s, the Miners' Federation, the industry's dominant union, opposed the introduction of large-scale, open-cut mining in Queensland in a deliberate effort to control production and preserve the jobs of its members in the labour-intensive underground mines (Barry and Bowden, 1997). The Federation reasoned that only by limiting coal production could it protect the long-term future of the industry. The miners' officials believed, as history had shown, that an unregulated market would engender conditions in which employers would compete for contracts by undercutting prices and cutting jobs (Fisher, 1987).

The nature of the product market influenced outcomes as well as strategies. During the expansion of the industry in the 1970s, the unions achieved major concessions as employers agreed to pay higher wages to ensure industrial peace. Conceding union claims proved only a minor inconvenience and distraction from the central task of winning coal (Gibson, 1990). As the product market once again changed during the 1980s this situation reversed. Employers were no longer willing to acquiesce to union claims as they fought to retain their margins of profitability in the face of steadily declining coal prices.

The State of the Industry

Until the 1960s, the Australian coal industry had been geared towards domestic consumption. NSW had remained the dominant centre of coal

production with most employers utilising underground mining techniques. Then, from the 1960s to the 1980s, export coal production expanded dramatically, following the development of a number of large open-cut mining operations in Central Queensland. Indeed, Waring and Graham (1998:2) estimate that coal exports have increased at an average rate of 13 per cent since the 1960s. The Australian coal industry developed rapidly as a result of two factors, the expansion of the Japanese steel industry and the OPEC oil crisis. The expansion of Japanese steel production provided a large market for high-quality 'coking' coal. As the pioneering export producers discovered, Queensland had massive reserves of high quality coal lying in shallow deposits accessible to open-cut mining techniques (Trengrove, 1979). The OPEC oil crisis prompted nations heavily reliant on oil imports to substitute low-quality 'thermal' coal where possible (Sakamoto, 1982). Thus, following the development of open-cut 'coking' coal mines, the Australian coal industry expanded further to meet the needs of an international energy market consuming increasing quantities of 'thermal' coal. The demand for coal in the 1970s pushed its price to unprecedented levels and Australian producers reaped some of the benefits. Yet, consumers of Australian coal have and continue to benefit from a range of initiatives designed to stimulate excess capacity, reduce the real price of coal and returns to the Australian economy. The Australian coal industry's comparative advantage has been whittled away through excess capacity facilitated by consumers offering soft loans to new producers; sponsoring uncommercial joint ventures and providing long term contracts to encourage new entrants (see Colley, 1997 & 1998 for a thorough discussion of these investment and trading distortions).

After two decades of massive expansion, the industry then began to show signs of strain during the mid-1980s. As more and more firms brought mines into production they created a situation of potential oversupply in which consumers could bargain for price reductions. Not only did consumers have many different sources to choose from, they could also substitute different types of energy fuel (such as oil, hydro-electric, and nuclear) for coal. The introduction of mini-mills in place of conventional blast furnaces also allowed steel producers to use direct reduction techniques instead of coke as a reducing agent (Koerner, 1993). As international consumers became less dependent upon Australian coal, the

prices they offered declined. Open-cut producers also faced cost increases as their coal seams lay in uneven deposits that angled away from the surface. As employers moved increasing quantities of earth to uncover coal, they needed to employ more workers and earth-moving equipment. Cost increases and prices reductions combined to reduce the employers' margins of profitability and this forced the spotlight on industrial relations. From 1988, the industry became subject to substantial restructuring as increased intra- and inter-national competition motivated Australian producers to address bargaining structures and existing work practices.

In 1988, producers gained access to shift rosters that enabled them to introduce continuous production. The *Coal Mining Industry (Production and Engineering) Interim Consent Award of 1990* brought the two formerly discrete production and engineering streams of employment together under one industrial agreement and enabled employers and employees to engage in enterprise bargaining. In 1991, new underground and open-cut work models removed existing demarcations, allowing production and engineering employees to perform "cross-stream" work. In 1995, the industry's specialist industrial tribunal, Coal Industry Tribunal (CIT), became subsumed within the Australian Industrial Relations Commission.[1]

In 1997, the Federal Government imposed another major change when it removed export price controls on coal. These controls were an initiative of the Labor government in 1973 and gave government the power to block sales of exported coal where it believed that the price was too low and therefore not in the national interest. When discarding these controls, the then Minister for Resources and Energy, Warwick Parer, argued that price controls drove 'investment and orders to other countries' and that their abolition would remove a 'major hurdle to investment and jobs in Australia' (Parer, 29/5/97).

Despite a raft of changes in the past decade, coal employers continue to argue the need for further 'reform', particularly in the area of industrial

1 The CIT operated as a separate and final industrial authority, established to conciliate and arbitrate disputes and set terms and conditions of work. The Tribunal existed between 1946 and 1995.

relations. As intensified inter- and intra-national competition and continuing lower coal prices make greater inroads into profitability, employers push the boundary of the 'reform' debate. Thus, despite major restructuring and significant productivity growth, the employers assert that there remains a major problem with labour productivity.

Crisis in Coal

In 1997-98, chronic oversupply of both thermal and hard coking coals in the Australian coal industry produced what can only be described as a coal price war. This oversupply led to spot coal prices dropping as low as US$22 dollars a tonne, or around 40 per cent less then the Japanese benchmark price (Hextall, 31/7/98). The oversupply situation, was a result of optimistic forecasts of demand scenarios in Asia and uncoordinated investment decisions to build new mines, encouraged and facilitated by coal consumers. Excess productive capacity forced many Australian producers to offer loss making 'buy-in' prices to off-load their coal to ensure at least positive cash-flow. An example of such an arrangement occurred in mid 1998, when Macquarie Coal was reported to have won a long-term contract with Taiwan's Taipower of approximately 500,000 tonnes per annum. Macquarie secured a first year buy-in price of just US$15 a tonne or about US$7 a tonne lower than the already depressed coal spot market price (Kirkwood, 1998).

Such a loss-making contract caused the dominant miners' union, the CFMEU, to call for a moratorium on the development of new coal mines and a more united approach on coal marketing. The NSW Minerals Council rejected this call arguing that 'competition not managed trade would resolve any problems facing the industry' and that 'the decision to proceed with a particular mine was up to the owner' (Kirkwood, 1998). Yet this was not the view of all producers. For example, in September 1998, BHP Coal's General Manager warned delegates at a coal industry summit that there was already 8 million tonnes of latent coking coal capacity and another 11 million tonnes of new capacity scheduled to come on line (Long, 24/9/98). In addition, the large Swiss trading company and coal producer, Glencore International (1999:29), reported that 'The market is currently oversupplied from Australia where rapid

increase in production took place over the last two years...' Moreover, a special report on the Australian coal industry by the *Australian Financial Review* argued that:

> No-one doubts that the coal producers are doing it tough. Bosses grumble that 20 per cent of the industry should be shut down, then the rest would do all right. The problem is, no-one agrees on which 20 per cent (Hextall, 29/9/98)

The above figure accords with the assessment by Waring and Graham (1998:4) who argued that "capacity in 1997 represented excess capacity of over 20 per cent'. The problem of excess supply is not a new problem in the coal industry. Gollan (1963:63), for example, described the early 1880s in the following way:

> For the miners, 1880 was a hard year and 1881 little better. They were the human victims of the price war that raged between the mining companies....The proprietors were aware that the savage price cutting was against their immediate interests but considered there was no alternative to it.

In the late-1990s, Australian coal producers responded to the depressed coal market by retrenching employees, closing marginal operations and in all cases, advocating workplace reform to increase productivity. For example, in Queensland, coal employment as of December 98 was 8360 workers, down from 10692 in June 96 (Australian Black Coal Statistics, 1998:16). According to a study by Australian Mineral Economics, employment in NSW coal mines in the financial year 1997-98 fell from 14,351 to 11,625 or 2726 workers (nearly 19 per cent) (Kirkwood, 26/10/98). Meanwhile, annual output of saleable coal per employee rose to 8110 tonnes in 97-98 from 6,920 tonnes the year before. These statistics generally accord with those of the Joint Coal Board in the following table.

These statistics indicate that between the financial year periods of 1996-1997 and 1997-1998, employment declined in the NSW black coal by 2656 jobs whilst saleable output per employee rose dramatically by 1190 tonnes (or over 17 per cent) in the same period. However, despite this massive increase in productivity, the NSW Minerals Council recorded an

overall loss for the NSW coal industry of $186 million in 1997-98. This was the first overall loss in eleven years and came with a 91 per cent increase in producer debt.

Table 1: Employment and Productivity in the NSW coal industry

	1996-97	1997-98	Net Change
Employment	14351	11695	-2656
Saleable output per employee, tonnes	6920	8110	+1190

Source: Joint Coal Board (1999), 'Summary of NSW Black Coal Statistics'

While certainly important, over-capacity alone does not explain recent coal price reductions. The impact of the Asian financial crisis on steel production also explains the weaker demand for coking coal. However, strong demand for thermal coal led to the almost paradoxical situation of record Australian export volumes but reduced export revenue as a result of lower contract and spot prices. This strong demand for thermal coal was interpreted as the result of Asian industry switching to relatively cheaper energy sources such as coal as they attempted to export their way out of the Asian economic downturn (Hextall, 29/9/98). It is universally accepted that if the Australian dollar had not depreciated relative to the US dollar (coal contracts are written in US dollars) the downturn in the Australian coal industry would have been much worse. Some producers though, who had engaged in currency hedging at US$0.70:A$1 for example, were unable to secure the full benefit of the Australian dollars slide to just below US 60 cents in late 1998.

Clearly, the dramatic reduction in the size of the coal mining industry workforce is a producer reaction to cuts in coal prices. However, the paradoxical situation of record export tonnages, coupled with a decline in the value of those exports, indicates that some producers might have either over-reacted or used the crisis as a rationale for paring back their workforces beyond what is necessary for efficient mining. The two studies of the coal mining industry by NILS and the Productivity Commission effectively supported the employer's decision to rationalise their employment in response to accepting lower coal prices despite producing greater volumes of export coal.

The NILS Report

In 1998, Rio Tinto commissioned the National Institute of Labour Studies to write a report on labour productivity. Rio Tinto is the most notable of a group of hard-line mining employers who have sought to radically alter bargaining structures and work practices without the cooperation of the powerful mining unions. Rio's industrial relations strategy has led to a number of bitter and protracted industrial disputes with the miners' unions, including the much-publicised Hunter Valley dispute which began in 1997 and continues to be contested in 1999. The following discussion focuses on the findings of the Rio Tinto report that appear in the National Institute of Labour Studies monograph *Enterprise Bargaining in the Coal Industry Implications for Work Practices* (Hawke and Robertson, 1999). The NILS researchers' listed their study objectives on page one of their monograph thus:

> (i) to examine recent decisions by the Australian Industrial Relations Commission relating to working arrangements in the black coal industry in order to identify what the Commission regards as modern working arrangements for the industry;
>
> (ii) to determine the workplace issues which need to be addressed to help make Australia's black coal industry internationally competitive; and
>
> (iii) to identify the extent to which provisions identified in enterprise agreements in the Australian black coal industry address these issues and so facilitate productivity improvements through the removal of inefficient work practices.

These objectives illustrate how the researchers commenced their report by making key assumptions about the nature of the industry. First, in objective (ii) they assume that there are 'workplace issues' that need to be addressed and, according to objective (iii), these issues are 'inefficient work practices'. Second they assume that it is necessary to address these issues to make the industry 'internationally competitive'. Yet the industry is already internationally competitive, Australia being the world's largest export producer with 70 per cent of Australian coal

production directed towards export markets (a point noted by the researchers on the very same page).

It is also apparent that the formulated study objectives shaped the conclusions the NILS researchers reached and their recommendations. The NILS report concluded that the Australian coal industry and the NSW sector in particular suffered from poor labour productivity. The NILS researchers based this finding largely on existing international benchmark comparisons of coal industry productivity completed by the Swan Consultants (1994) and Tasman Asia Pacific (1997). However, the report fails to identify who these consultants were, who sponsored their studies, how they conducted their research and why their findings should be accepted as accurate benchmark comparisons of coal industry productivity.

At each turn, the benchmark comparisons place employees in a very poor light by attributing the industry's competitive difficulties to poor labour productivity. For example, the researchers provide evidence from the Swan study to illustrate deficiencies in shift rosters in Australian mines. The researchers cite shift rosters and working arrangements more generally as a major reason for poor productivity. The report compares Australian shift rosters, including 8-hour, five-day shifts with equivalent 12-hour, seven-day United States rosters. The implication is that Australian employers are prevented from implementing the kind of shift rosters they require to compete with major overseas producers. In fact, since 1988, Australian employers have had access to seven-day rosters and 363 days per year continuous production. A number of employers decided not to introduce continuous production because they considered such a change unnecessary and inefficient. Thus, according to a senior manager at Coal and Allied, one of Australia's largest producers:

> the cost associated with seven-day production has been prohibitive and not widely embraced. Five years on, only a minority of employees work rosters covering more than five days a week (Carter, 1992:21).

In his study of work reorganisation in three open-cut coal companies, Barry (1999) found that management in two deliberately decided not to extend continuous production beyond overburden removal – the key

production bottleneck - into other areas of production and maintenance. These companies calculated that the gains to be obtained from placing all employees on seven-day rosters could not compensate for the increase in overall wages costs. The Swan report also stated that in cases where Australian mines operated 7 days, they required 5 crews. In Queensland, the main form of continuous rostering adopted after 1988 was seven-day production with 4 crews.

Such is their concern with the contribution of labour to overall productivity performance that the NILS researchers fail to offer, or only grudgingly concede, other possible explanations for differences in productivity such as the influence of technology and geology. Thus, the NILS researchers use the Swan study to compare the better performing Australian and United States 'truck and shovel mines' where respectively 30 per cent and 15 per cent of all employees 'were involved in operating bulldozers and other equipment' (Hawke and Robertson, 1999:9). From this, the researchers argue that Australian coal mines are substantially over-staffed, to the extent for example that they require '40 per cent more employees per piece of equipment than Australian hard rock mines'. Overstaffing certainly provides justification for a claim of poor labour productivity. However, we must ask what influence differences in geology have on staffing requirements, in particular production operations. As mentioned, one of the major problems Australian producers face in attempting to combat falling coal prices is that deepening coal seams contribute to increased costs of production. In open-cut mines, this problem is most commonly associated with the need to employ more human and capital resources in overburden removal, using truck/shovel operations.

The failure of the report to highlight this problem indicates the researchers' lack of knowledge of the dynamics of the mining process in the most important sector of the export industry. It would not have been difficult to find information on this issue in a review of the recent academic or industry literature on Australian coal mining (e.g. Barry, Bowden and Brosnan, 1998; Maitland, 1997). In fairness, the report does concede that geological conditions may 'explain about 20 per cent of the productivity gap between the Australian and United States mines' (Hawke and Robertson, 1999:8). Considering the full impact of

geological conditions, Maitland (1997) has shown how coal mines with reported high productivity levels can look much less impressive after taking stripping ratios and the relative cost of coal purification into full consideration. The burden of having to wash coal greatly lowers productivity in 'coking' coal mines because of the time taken, the expense incurred and the amount of coal lost in the process. Australian open cut mines are also more likely, as the NILS researchers note, to work a number of thin seams. Multiple thin seams make mining more problematic then in the United States where thick single seams are more common. Additionally, Australian mines generally have harder ground that requires greater blasting and creates more handling difficulties than in United States mines.

Simple benchmark comparisons of productivity prove unreliable when major differences in operational requirements are taken into consideration. However, excluding the impact of geology and coal quality in measures of labour productivity (such as 'output per manshift') suits employers as they argue the need for more efficient work practices. In repeating this approach, the NILS report provides further support for the employers' claim of poor Australian labour productivity. Thus, shortly after its publication, the NILS report found it's way into the public debate with the industrial relations reporter for *The Australian* citing the report as demonstrating 'Coal mine work reform [is] still in a black hole' (Way, 1999). In the same article Way (1999:23) correctly noted that:

> The assertions contained in the report will give more ammunition to those in the industry – such as Rio ... and the Federal Government. Both maintain that workplace reform is still well behind world's best practice and further change is required.

After reviewing the benchmark comparisons, the researchers examine recent Industrial Relations Commission decisions relating to labour productivity. In particular, the researchers focus on two recent decisions of the Full Bench – the Curragh and Moranbah North decisions. Because the Full Bench examined such issues as staffing levels, demarcation, custom and practice, seniority, wages and hours of work, the researchers argue that the decisions provide evidence to support their view that

labour productivity is the key to understanding industry performance. The researchers claim that the decisions establish modern benchmarks for productive working arrangements. The decisions give management the available tools to deliver workplace change and 'a clear indication that the Commission will not impede the introduction of measures designed to improve labour productivity' (Hawke and Robertson, 1999:25). Thus, on the same page, 'the 'restrictiveness' and 'inefficiency' of current working arrangements in the black coal industry are largely a matter of choice'. Of course, this is not the first time industry observers have made this comment. A number of commentators made the same observation when the Coal Industry Tribunal introduced continuous production in 1988 and following the introduction of enterprise bargaining and new work models in the early-1990s. It will be interesting to see whether employers embrace this philosophy or simply find new labour restrictions as inter- and intra-national competition continues to erode existing margins of profitability.

The Productivity Commission Report

In July 1997, the Commonwealth Government, called upon the Productivity Commission (then called the Industry Commission) to inquire into and report on the performance of the Australian black coal mining industry. In particular, the Commission was asked to benchmark the performance of Australian black coal mines with Australian metalliferous mines and overseas black coal mines whilst recommending ways of improving the industry's international competitiveness. The Commission issued a draft report in November 1997, but the final report was not released until February 1999. The Commission conducted its inquiry in the context of Government members publicly arguing for changes to employment relations as a means of ensuring the competitiveness and profitability of the industry (Reith, 13/7/97).

The Commission drew on evidence obtained from 52 written submissions prior to the draft report and 16 submissions in response to the draft report. Only 16 individuals and organisations made submissions at formal public hearings held by the Commission. According to their report, representatives from the Commission visited some open-cut and

underground mines in NSW, Queensland, Western Australia in addition to mines and ports in the United States and Canada. The report contains no information on the length of these visits or the activities undertaken (eg. whether or not the representative conducted interviews with a range of mine site personnel). The Commission also contracted a number of consultants to both model various productivity scenarios and to conduct a benchmarking exercise. The Commission awarded the Centre for Policy Studies a contract to conduct econometric modelling whilst it employed Tasman Asia Pacific to conduct the benchmarking.

A core requirement of the Commission, under the terms of reference, was to benchmark 'the productivity performance of Australian black coal mines compared with best practice in comparable international coal mines and in analogous Australian metalliferous mines' (Productivity Commission, 1999:53). There are several problems with the approach taken by Tasman Asia Pacific (Tasman) in conducting this benchmarking exercise for the Commission. Firstly, Tasman sent a survey to 52 mining operations in the United States and Australia. Tasman obtained responses from 44 operations that included; 4 Australian metalliferous mines, 27 Australian coal operations and 13 United States coal operations. Tasman used labour productivity data to compare the best United States operations (ie. truck/shovel/dragline and longwall operations) with mines in Australia with a 'cross section of performance levels'. Tasman's rationale for this approach (that immediately creates a performance gap between the United States and Australian operations), was to show 'the scope for improvement in the Australian industry'. In other words, Tasman did not compare the best United States mines with the best Australian mines but, rather, the best United States mines with Australian mines having a variety of labour productivity levels. Moreover, there is no discussion in the report that most US mines supply only to their domestic market and simply don't compete with Australian mines in export markets. Hence, benchmarking Australian producers with non-competitors appears all the more incongruous.

Tasman conducted its benchmarking on core mining activities (eg. coal and overburden removal) and excluded important mining activities such as coal washing, maintenance and administration and clerical activities. The exclusion of these factors generally dilutes the reliability and utility

of the benchmarking exercise. For example, good regular maintenance may increase productivity but may also impair observed productivity because of machine down time. Alternatively, mine management can run machinery with very little maintenance to increase productivity in an observed period but thereby eventually shortening the working life of the machinery.

A further problem with Tasman's approach (a factor common to both the NILS and Productivity Commission reports) was the exclusion of geological factors from their analysis. A mine's stripping ratio, the thickness and consistency of coal seams and other geological factors are all-important influences on observed productivity. The Commission foreshadowed this problem in its report but countered that 'in some cases poor geology can have the perverse effect of stimulating high productivity in a mine because this is essential for its survival'. This might be accurate in a few cases but would seem to be a poor defence to what is a significant problem for the credibility of Tasman's benchmarking exercise. Aside from these major faults, Tasman failed to consider qualitative labour issues that can drive or inhibit productivity growth. These include the level and quality of training; management and information systems; the industrial relations climate and the structure of remuneration systems. However, even using this rather narrow and questionable productivity comparison, the results indicate what the Commission describes as a 'mixed message'. Whilst Tasman determined that productivity of the Australian truck/shovel and longwall sample was 20-30 per cent lower than best practice United States coal mines and Australian metalliferous mines, they also found that Queensland dragline operations outperformed their United States counterparts. NSW dragline operations were marginally better or on par with United States operations.

Despite the problematic measures of productivity employed and the 'mixed results', the Commission confidently concluded that 'a good deal of the observed poor labour productivity and some of the capital productivity arrangements are the result of inefficient work arrangements' (Productivity Commission, 1999:61). Notably absent from the Commission's report is an explanation of what is meant by 'a good deal'. The Commission is also unable to account for differences between

the poorer performing truck/shovel and longwall operations and the world's best practice Queensland dragline operations. If, as the Commission states later, the CFMEU engages in pattern bargaining (Productivity Commission, 1999:159), and if 'a good deal' of the poor productivity problems are due to work arrangements then, poor productivity should be observable in all Australian operations including dragline operations. This clearly represents a major contradiction in the Commission's report and one that diminishes the rationale for their disproportionate focus on the contribution of labour to productivity.

Given this discovery of 'inefficient work arrangements', the Commission proceeds to devote three of its eleven chapters to an evaluation of work arrangements in the Australian coal industry. In chapter five, for example, the Commission is highly critical of seniority provisions that have been stripped from the *Coal Mining Industry (Production and Engineering) Interim Consent Award* 1990 but which remain in some certified agreements. The Commission simplistically argues that seniority provisions reduce productivity by restricting managerial prerogative when recruiting and retrenching. It is inappropriate to mount a strong defence of seniority here, particularly when the AIRC has already removed seniority through the award simplification process. However, what must be questioned is the Commission's flawed approach to arguing against seniority. In pursuing this approach, the Commission failed to empirically demonstrate or quantify how seniority reduces productivity. The Commission's conclusion is speculative, as it is has not demonstrated nor quantified the productivity gains that supposedly flow from removing seniority from the recruitment or retrenchment process. Moreover, the equity motives for seniority's existence (that it removes managerial subjectivity) are not properly discussed.

The Commission's report also makes the charge that '...restrictions on the use of contractors, casuals and part-time employees detract from mine performance and deny employment opportunities to people who wish to work this way'. Yet this conclusion would seem to exaggerate industrial reality. Almost all coal mining certified agreements contain contractor arrangements that clearly provide for management to utilise contractors and temporary employees where the workforce does not have either the skills to complete a task or to meet short term increases in

product demand. In addition, the Commission's conclusion would seem to contradict the submissions of the major Queensland employer representative – the Queensland Mining Council (p94) - which suggests that '...the use of contractors has become more prevalent in the industry and is growing...'. Restrictions that exist provide safeguards for the existing core workforce against the detrimental use of contractors and temporary labour. Strengthened job security, the creation of internal labour markets and less workplace accidents (see Quinlan, 1997) are generally the result of such arrangements.

The Commission is also highly critical of the industry's generous leave and remuneration conditions, arguing that these contribute to high unit labour costs (labour costs represent on average, 22 per cent of mine to port costs of producing coal - Productivity Commission, 1999:4). Indeed, the Commission even goes as far as to pre-empt the award simplification process by suggesting that, 'maintaining these (generous leave entitlements) as allowable award matters in simplified awards would result in relatively high 'minimum' labour costs'. The Commission's report though is silent on whether these undisputed high wages and conditions promote productivity enhancement. A study by the Australian Centre for Industrial Relations Research and Training (ACIRRT) in 1995 on coal mining enterprise agreements found that,

in most instances a sizeable proportion of black coal agreements are turning their attention to issues which are also being dealt with in mainstream agreements. It would also appear that black coal agreements are more likely to be productivity enhancing rather than cost minimising (Pragnell, 1995:32).

The ACIRRT finding indicates that high wages and conditions are associated with a highly productive industry. The productivity figures for the industry contained in an appendix of the Commission's report also support the notion of highly productive workforce compared with industry averages. Australian Bureau of Statistics data in Appendix C of the Commission's report demonstrates that Australian black coal production has increased by 160 per cent since 1980 whilst employment in the industry has declined by 21 per cent. This clearly shows a dramatic increase in productivity. Moreover, the Commission has supplied no evidence that high wages and conditions have stymied new investment in

the industry. Indeed they admit that "...investment in new mines has continued, averaging well over $350 million in both NSW and Queensland, between 1989-90 and 1995-96" (Productivity Commission, 1999:42).

Chapter six of the Commission's report discusses work arrangements that supposedly enable change. In the main, this amounts to praise of the effects of the Workplace Relations Act and support for weaker forms of regulation that clearly favour employers. For instance, the report praises the limitations imposed by the Act on the intervention of the AIRC in industrial disputes, despite the fact that the AIRC's non-intervention clearly was one of the factors that prolonged the dispute at the Hunter Valley mine (Waring and Lynch, 1998).

The Commission has additionally called for the "development of a contestable market for union services" (Productivity Commission, 1999:163). Access to bargaining agents other than trade unions are a feature of the Workplace Relations Act 1996 and yet there has been no mass exodus from the miner's union, the CFMEU. This would seem to indicate that the vast majority of workers have already exercised their choice to remain members of the principal coal industry union. The only plausible reason then for the Commission's proposition is to weaken the bargaining power of the miner's union.

Like the NILS report, the Productivity Commission's report had a significant impact on Australian media and opinion-makers. In the *Sydney Morning Herald*, for example, Askew and Cleary (12/2/99) reported that 'the report reinforced negative perceptions about labour relations in the industry', whilst the *Newcastle Herald* (12/2/99) reported calls from Industry Minister, Senator Minchin, to implement all the Commission's recommendations. Moreover, as Davis observed in the *Australian Financial Review* (10/10/98):

> ...only a few months later (after the Productivity Commission had released its first draft of the report), large slabs of the Productivity Commission's agenda are either in place or close to being implemented at dozens of Australia's black-coal mines'.

As evidence of this, Davis points to the Curragh decision (Dec 983/98) in which a full bench of the AIRC ruled in favour of the company, ARCO Ltd, on almost every workplace change in dispute. Whilst this claim may have been over-zealous, it does indicate how the Productivity Commission's recommendations have been used to legitimise government and employer initiated change in the coal industry.

An Alternative Approach

Coal employers have consistently asserted that to combat price reductions and remain internationally competitive they need to improve productivity. To do this, producers argue they need greater labour flexibility. So far, this paper has demonstrated how price reductions are the result of a market characterised by intense inter- and intra-national competition and oversupply of energy and metallurgical fuel. To the extent that oversupply and competitive selling lead to price reductions, it is important to consider the implications of recommendations for measures to increase productivity. If employers seek to raise productivity to increase output under such market conditions, then their efforts will only result in even more competition and lower coal prices.

If increased production alone is not the key to raising profitability or even remaining competitive, then perhaps employers seek greater labour productivity to lower costs by increasing production while shedding staff. The productivity and employment figures presented above certainly support this proposition. Employers may view such a strategy as a rational and even legitimate response. However, they may find that it still fails to deliver their expected result due to export consumers extensive knowledge of the cost structures of Australian mining operations (Colley, 1998). The purchasing power and market tactics of overseas consumers enables them to negotiate price reductions in line with cost reductions. Koerner (1999) recently demonstrated how this argument would apply to the Queensland Government's review of coal rail freight charges. High rail freight imposts have represented the major resource rent imposed upon the Queensland coal industry. This system has allowed successive governments to capture resource rent at source and subsidise other rail consumers. Keorner asserted that the advantage of any reduction in

existing rail freight charges would simply be lost in contract negotiations with powerful consumers. A consequent reduction in export coal prices would see public revenue pass to private overseas consumers.

Perhaps the main criticism of these studies is their failure to refer to research that presents an alternative view. There is more than enough evidence to suggest that it is oversupply and weak demand much more than labour productivity that threatens jobs, profits and investment in the Australian coal industry. And yet, these reports continue to accept the employers' assertions that industrial relations arrangements and labour productivity are the causal explanations for poor performance. It is not difficult to understand why the employers and their representatives argue the case for industrial relations reform if we understand the competitive nature of the export coal market. Coal employers continue to exercise their right to negotiate individually with consumers who maintain collective purchasing arrangements. Since the mid-1980s, large, low-cost employers have been prepared to negotiate price reductions in return for guaranteed long-term contracts. These employers have been able to absorb the price reductions that have forced many of their higher-cost competitors out of business (Lee, 1988; Lee and Draper, 1988) Meanwhile, industrial relations issues represent a convenient distraction, making otherwise fierce price competitors appear united in pursuing their collective interest (Barry, 1999b). Abolishing the Coal Industry Tribunal and introducing flexible work practices were examples of issues that all producers supported while they pursued cut-throat marketing strategies.

Conclusion

There is little doubt that the Australian coal industry is currently facing a major challenge as margins of profitability decline in the face of falling coal prices. Given the importance of coal mining to the Australian economy, it not surprising that governments and producers have commissioned studies to recommend changes to improve the industry's competitive position. Unfortunately, however, those who have contributed to the policy debate have done so in a way that overstates both the contribution of labour to poor productivity and the importance of labour productivity itself to industry competitiveness.

This paper has examined the NILS and Productivity Commission's reports and argued that they represent partial contributions to the policy debate on industrial relations in the coal industry. The two reports have common characteristics. First, they both fail to place their analysis of the industry within an historical context. They simply assume that any reference to tradition has/or should have no relevance to current industrial relations practice. This assumption has important implications for the nature of their recommendations for change. A failure to understand the historically important influence of the product market means they fail to understand that industrial relations change may actually have little impact upon industry profitability.

Second, both reports rely on benchmark studies that make findings as if they were comparing like with like. However, coal mining operations differ dramatically according particularly to their technological and geological characteristics. In open-cut mines, differences in strip ratios (the ratio of earth moved to coal uncovered) have an enormous impact on productivity and profitability. Mines with low stripping ratios (i.e. favourable geology) produce high levels of output per employee compared to mines with high ratios. The different technology employed in the underground sector has a similar effect. Underground mines with longwall technology have much greater levels of productivity than mines that operate traditional mechanical cutting technology. Simplistic comparisons of labour productivity in mines with different geological and technological conditions can produce findings falsely suggesting the need for improved working practices. A balanced approach to understanding variations in product output per employee would stress the complex interplay between geological conditions, mining methods, technology, managerial practice and labour productivity.

Both the NILS and Industry Commission reports make biased recommendations about the need to improve labour productivity by not adequately considering the contribution of non-labour variables to productivity performance and by failing to consider how improving productivity might assist an industry already suffering from chronic over-capacity. Despite these shortcomings, both reports have been used by both the Federal government and some coal producers to legitimate

actions that arguably, have a deleterious effect on employees and their unions.

If the last decade has demonstrated anything it is that the Australian coal industry has dramatically raised its productivity performance and yet coal prices have steadily declined. If the Australian coal industry is to continue to raise current levels of export revenue, deliver employers high profits and provide existing mining communities with secure employment, the policy debate must develop beyond its current focus on increasing labour productivity. The evidence suggests that this narrow focus allows individual producers to pursue self-interested marketing strategies that contribute to lower coal prices and engender uncertainty rather than prosperity.

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