

Payment Systems and Workplace Industrial Relations in Australian Manufacturing Industry: An Historical Overview

Chris Wright

REPRINT 1995

INTRODUCTION

The traditional preoccupation of Australian literature with the centralised features of the industrial relations system has led to a number of assumptions about the nature of workplace activity. A principle contention has been the dominant and limiting effect that arbitration has had upon industrial relations at the workplace. Nowhere has this been more evident than in discussions of wage determination and payment systems. Despite an extensive body of overseas literature on this topic¹, Australian writers have generally neglected this area, arguing that centralised wage determination through arbitration has precluded the use of company specific payment systems. Where the existence of such systems has been acknowledged, Australian observers have considered them either insignificant or viewed them simply as exceptional.²

This paper challenges such an assumption. It argues that a variety of payment schemes have been used by Australian employers over time, and further, that during particular periods of industrial development these techniques were widely applied and had a critical impact upon workplace industrial relations. The paper begins by outlining the use of payment by results and piecework systems during the period prior to the Second World War. While these techniques were central to labour management in a number of industries, it was not until the post-War years that payment systems assumed a more general significance. The second and major part of the paper examines the rapid increase in the use of these techniques in manufacturing industry during the period from the 1940s to the late 1960s. It describes the different types of payment systems applied during this period, the extent of their application, and their impact upon workplace industrial relations. The role of the state and labour response are also examined in the third and fourth sections of the paper. The fifth section analyses the demise of wage incentives as forms of labour control during the late 1960s and early 1970s.

EARLY PRECEDENTS: PAYMENT BY RESULTS AND PIECEWORK, 1900-1940

During the earlier half of this century, the concept of payment by results was extremely popular amongst Australian employers. The concept was widely publicised within

1 International Labour Office (1951) *Payment By Results*, Geneva, ILO; Shimmin,S. (1959) *Payment By Results, A Psychological Investigation*, London, Staples Press; Behrend,H. (1963) "An Assessment of the Current Status of Incentive Schemes", *Journal of Industrial Relations* (hereafter *JIR*), Oct., pp.96-109; Lupton,T. (1972) *Payment Systems, Selected Readings*, Harmondsworth, Penguin; Brown,W. (1973) *Piecework Bargaining*, London, Heinemann; Daniel,W. & Millward,N. (1985) *Workplace Industrial Relations in Britain*, Gower, pp.200-208.

2 Littler,C., Quinlan,M. & Kitay,J. (1989) "Australian Workplace Industrial Relations: Towards a Conceptual Framework", *JIR*, Dec., p.512; Bongarzone,C. & Compton,R. (1986) "The Impact of the Macro Industrial Relations System on Relations at the Enterprise Level", in Blandy,R. & Niland,J. (eds.) *Alternatives to Arbitration*, Sydney, Allen & Unwin, pp.135-6.

management literature, and advocated by peak employer organisations as a panacea for low output and other industrial ills.³

The state was also an active advocate of payment by results. During the 1920s, the NSW Minister for Labour and Industry, G.S.Beeby, strongly supported the use of payment by results in order to increase productivity and counteract what he termed, the insidious "go slow" doctrine. In his later career as a Commonwealth Arbitration Court judge, Beeby continued to be a strong advocate for payment by results as part of a broader campaign to rationalise manufacturing industry, eventually including provision for such schemes in the 1930 Metal Trades Award.⁴

Unlike time wages where workers were paid for the period in which they were employed, payment by results or piecework directly related workers' earnings to the output produced. In theory, payment by results solved the problem of potentiality inherent in converting labour power to productive labour, in that the employer only paid for the useful output produced.⁵

Payment by results schemes had been in existence in a number of industries for some time. During the later nineteenth century, both the clothing and bootmaking industries used piecework as the predominant forms of remuneration. Piecework was also important in the shearing, mining, printing, and building industries. During the 1920s and 1930s, variations on basic piecework evolved. For example in the clothing industry, larger employers introduced task work, where a set level of earnings were paid on condition of a specified output being produced.⁶

The establishment of new industries, mass production methods and a semi-skilled workforce aided the extension of payment by results. In the steel industry, the Broken Hill Proprietary Co. (BHP) imported premium bonus schemes as part of the American method of production. Workers were paid a bonus for exceeding shift tonnage targets established by departmental superintendents. By 1930, Judge Beeby highlighted the use of various forms of payment by

3 Russell,P. (1985) "The Response of Management Policy to the Industrial Conditions of the Later World War I and Reconstruction Era, 1917-1921", unpublished Honours thesis, Dept. of Industrial Relations, Uni. of Sydney, pp.61-4; "System of Payment in Factories", *Australasian Manufacturer* (hereafter *AM*), 3/3/1917, pp.19-20; "Payment By Results Tested By Experience", *AM*, 5/3/1921, p.1.

4 Shields,J. (1984) "Capital, Craft Unions and Metal Trades Apprenticeship in NSW Prior to World War II", in Cottle, D. (ed.) *Capital Essays*, General Studies Dept., Uni. of New South Wales, p.13-5; Sheridan, T. (1975) *Mindful Militants: the Amalgamated Engineering Union in Australia 1920-1970*, Melbourne, Cambridge Uni. Press, pp.102-8; 24 *Commonwealth Arbitration Reports* (hereafter *CAR*) 773 at 783 & 874-7; 25 *CAR* 364 at 370-6; 28 *CAR* 923.

5 ILO, *op. cit.*, pp.7-30.

6 Frances,R. (1988) "The Clothing and Boot Industries, 1880-1939", in Willis,E. (ed.) *Technology and the Labour Process: Australian Case Studies*, Sydney, Allen & Unwin, pp.100-103; Hagan,J. & Fisher,C. (1973) "Piece-Work and Some of its Consequences in the Printing and Coal Mining Industries in Australia, 1850-1930", *Labour History*, no.25, pp.19-39; Ellem,B.(1989) *In Women's Hands? A History of Clothing Trades Unionism in Australia*, New South Wales University Press, pp.26, 45 & 124.

results schemes in the tobacco, clothing, boot, stove, agricultural implement, sheet-metal working, steel and box-making industries.⁷

Some employers also began to experiment with scientific management practices as a means of establishing more accurate payment systems. Based upon techniques devised by the American engineer Frederick Winslow Taylor, scientific management used job analysis and time study to discover the "one best work method" and provide a more exact estimate of a "fair days' work".⁸

Despite significant management interest in these techniques during the pre-War period, relatively few manufacturers introduced payment systems based on time study techniques. One of the earliest was the Melbourne clothing manufacturer, Pearson, Law & Co. (later Pelaco Ltd.). A further stimulus to the use of time study based incentives occurred with the influx of foreign manufacturers during the 1920s and 1930s. Overseas electrical appliance and rubber firms, such as Standard Telephones and Cables (STC), Ducon Condensor, Eveready, Dunlop, and Goodyear, imported scientific payment schemes as part of the foreign method of production.⁹

Time study based payment systems were also introduced to a number of firms by "efficiency experts". One of the most important of these were the Bedaux consultants, who introduced "scientific" payment systems in over a dozen firms during the 1930s. Notable applications included David Jones' Sydney clothing factory, and the lift manufacturers Waygood Otis.¹⁰

However, despite employer rhetoric, the extent of use of payment by results was limited. In the metal industries for example, lack of quantity production methods hindered their broader application. Most metal engineering firms by the late 1920s still based production on jobbing

7 Wright,C. (1988) "The Formative Years of Management Control at the Newcastle Steelworks, 1913-1924", *Labour History*, no.55, p.57; Forster,C. (1964) *Industrial Development in Australia, 1920-1930*, Canberra, ANU, pp.113-5; 28 *CAR* 932 at 937 & 958.

8 Taylor,F. (1967) *The Principles of Scientific Management*, New York, Norton; Rose,M. (1978) *Industrial Behaviour, Theoretical Development Since Taylor*, Harmondsworth, Penguin, pp.31-41.

9 Frances,R. (1986) "No More Amazons": Gender and the Work Process in the Victorian Clothing Trades, 1890-1939", *Labour History*, no.50, p.101; Frances (1988), *op. cit.*, pp.104 & 110-11; "Survey of Wage Incentives - Ducon Condensor & Standard Telephones and Cables", Australian Archives (hereafter AA) Series SP666, item 54/695; Price,W. (1939) "Selecting and Paying Employees at STC", *Rydge's*, Feb., p.111; re Dunlop see Jeffries,R. (1937) "Wage Incentives Through Scientific Time Study", *Rydge's*, July, pp.538-9; re Goodyear see Gully,R. (1957) "The Nature and Extent of Payment By Results", in Oxnam,D. (ed.) *Payment By Results, Addresses to the Third Labour-Management Conference*, Uni. of Western Australia Press, p.2 & "Survey of Wage Incentives - Goodyear Tyre and Rubber Co.", AA Series SP 666, item 54/695.

10 Anderson,I. (1930) "The Control of Labour Expense Under the Bedaux Principle", *Rydge's*, Aug., pp.693-5; Ellem, *op. cit.*, pp.163 & 171; interviews Kath Buckley, former David Jones worker, 22/9/1988 & Keith Fifer, former David Jones time study officer, 19/2/1988; *The Sheet Metal Worker* (hereafter *SMW*) April 1939, p.1; *Amalgamated Engineering Union Monthly Journal* (hereafter *AEU/MJ*), Aug. 1933, p.14 & Nov. 1938, pp.18-9.

and repair work, and were slow to take up technological advances or new forms of work organisation.¹¹

Worker response was another limiting factor to the broader use of payment by results during this period. Unions raised a number of objections to such techniques. First, unions feared unemployment might result from the increased production fostered by payment by results. Second, unions argued payment by results led to "speeding up" and work intensification that was detrimental to workers' health. Third, unions argued such schemes destroyed comradeship amongst workers, arousing competition and jealousy for higher earnings. Hence, payment by results could undermine trade unionism by replacing collective bargaining over wages and conditions with individual bargaining.¹²

Union reaction was strongest in the metal trades. Here, organised labour response was a major factor preventing the more widespread use of payment by results. Unions such as the Amalgamated Engineering Union (AEU) and the Australasian Society of Engineers (ASE), were strongly opposed to the use of such techniques, drawing heavily on the experiences of engineering workers in British and American industry. Other craft unions such as the Boilermakers Society and Moulders' Union were also strongly antagonistic to payment by results. In a number of instances these unions fined members for accepting piecework, or expelled them for such "traitorist" activity.¹³

The opposition of the metal trades to the extension of payment by results culminated in several large disputes during this period, most notably in state enterprises. For example, attempts by the Commonwealth Government in 1917 to introduce piecework in its expansion of the ship-building industry, met with immediate union opposition. Similarly, bonus payments in the NSW Railways continued to evoke union hostility from the 1917 General Strike up to their abolition in 1932.¹⁴

In contrast to this union opposition, workers in a number of industries and firms, demonstrated a preference for piecework over time wages. For example, in the clothing and bootmaking industries, craft workers strongly favoured piecework over weekly wages, arguing the latter meant working to a task or quota and lacked the independence of payment per piece. Similarly some metal workers vigorously defended piecework given their high earnings under such schemes. For example, in New South Wales, a large proportion of

11 Sheridan (1975), *op. cit.*, p.55; re primitive manufacturing techniques see, "The Works of the Electrical Equipment Manufacturer Pty. Ltd.", *AM*, 15/12/1917, pp.14-6 & "Engineering and Machinery", *AM*, 27/1/1923, pp.18-20.

12 28 CAR 923 at 947-953; Sheridan, (1975) *op. cit.*, p.54; Anderson,G. (1929) *Fixation of Wages in Australia*, Melbourne, Macmillan, pp.444-5.

13 *AEU/MJ*, Jan. 1925, pp.28-33, June 1928, p.23; *The Australasian Engineer*, June 1927, p.106; Anderson, *op. cit.*, p.451.

14 Buckley,K. (1970) *The Amalgamated Engineers in Australia, 1852-1920*, Canberra, ANU, pp.255-6 & 258-261; Russell, *op. cit.*, pp.66-9; 28 CAR 923 at 940-1 & 1013-1016; Patmore,G. (1988) "Systematic Management and Bureaucracy: the NSW Railways Prior to 1932", *Labour and Industry*, vol.1 no.2, pp.315-7.

sheet metal workers were committed to piecework, arguing such systems were beneficial for workers.¹⁵

Worker support for piecework and other forms of payment by results was, however, conditional upon the manner in which such schemes were administered. In traditional piecework industries, such as clothing, piece-rates were commonly regulated by wages boards. Industry awards also set down minimum piece-rates and provided for worker participation in the setting of such rates. Outside of external regulation workers commonly instituted strong shopfloor control over such systems. At the Sydney factory of Metters Ltd., an employee committee was instituted to oversee the piecework system, and detailed agreements were reached over piecerates and payment for faulty materials. Moulders and sheet-metal workers employed under the Metters' scheme imposed "dargs" on output, and left work at the completion of their tally. Other workers at the factory referred to the pieceworkers as the "favoured four hundred", given their high earnings.¹⁶

INCENTIVE PAYMENT SCHEMES IN MANUFACTURING INDUSTRY, 1945-1970

In the period following the Second World War, payment by results and other payment systems were used by an increasing number of employers. One reason for this was the expansion in product markets during this period. Following the rapid modernisation of industry during the War, the post-War years were marked by rapid economic growth. As consumer demand increased, output became the central concern of manufacturers. Employers adopted production-based payment systems as one means of maximising output to satisfy consumer demand.¹⁷

Changes in the post-War labour market also played a part in the more extensive use of these techniques. Post-War economic growth resulted in an increasing demand for labour. The decades of the 1940s and 1950s were marked by high levels of labour turnover, as workers moved from firm to firm looking for superior wages and conditions. Surveys conducted by the Department of Labour and National Service (DLNS) during the late 1940s estimated average annual labour turnover for manufacturing of 90 per cent. In some firms, turnover rates exceeded 150 per cent. Incentive payments were seen as one means through which an employer could attract new workers and also maintain his existing workforce.¹⁸

15 Frances, (1988) *op. cit.*, p.101; Ellem, *op. cit.*, pp.26 & 45; Tsokhas,K. (1988) *Work Practices and Sheet Metal Workers, 1929-1970*, Working paper No.116, Dept. of Economic History, ANU, pp.22-5.

16 For examples of arbitration control of piecework see 17 *NSW Industrial Reports* (hereafter *AR*) 256, 27/28 *AR* 448, 31/32 *AR* 341; Tsokhas, *op. cit.*, p.25; interviews Joe Campbell and Stan Benn, former Metters workers, 13/9/1988.

17 Re post-War economic growth see Boehm,E. (1971) *Twentieth Century Economic Development in Australia*, Melbourne, Longman, pp.130-6.

18 Byrt,W. (1948) "Some Facts on Labour Turnover", *Bulletin of Industrial Psychology and Personnel Practice* (hereafter *BIPPP*), vol.4, no.4; - (1949) "Labour Turnover in Australian Industry", *BIPPP*, vol.5, no.3; "Record of Contact - Bonds Industries Ltd.", AA Series SP 146, item 597/4/6.

By the late 1940s, a wage incentives "fad" was sweeping through Australian industry. The Institute of Industrial Management held top management conferences on the subject, and bodies such as the Chambers of Manufactures, and the newly-formed Institute of Public

Affairs became strong advocates of incentives. Firms which used incentives presented lectures on their schemes, and extensive publicity was given to the issue in both management literature and the general media.¹⁹

TYPES OF PAYMENT SYSTEMS

A variety of payment systems were used by manufacturing employers during these post-War years. While grouped together under the common title of "incentives", there were significant differences between these schemes.

While output based payment systems such as piecework, task work, and tonnage continued in many industries, a growing number of companies began to introduce more sophisticated payment schemes based upon scientific work measurement practices. These techniques became more widely applied during the post-War years through the establishment of modern management consultancies and the continued influx of foreign manufacturers. Consultants such as W.D.Scott & Co. and Personnel Administration Pty. Ltd. (PA), introduced time study and other work measurement techniques amongst a wide cross-section of industry. Multinational corporations such as General Motors-Holden's (GM-H), Ford, Unilever and ICIANZ, also furthered the spread of scientific management practice.²⁰

While wage incentive schemes were seen by scientific management advocates as only one part of their broader rationalisation of production, they were nevertheless a crucial component. Wage incentives were aimed at gaining the co-operation of the workforce in carrying out the new methods and achieving the increased levels of effort established by methods engineers and work study analysts. As the consultant Walter Scott stated:

"It must be remembered, however, that no new methods will be of any use and no savings will result from such improved methods unless ways are found of getting the employees to work in the new way...An incentive plan is invaluable in this regard...An incentive plan helps to overcome resistance and to bring about the acceptance and the success of any methods improvement plan...It is not too much to say that the success of many methods improvement programmes may very well depend upon the success of the incentive plan which follows."²¹

19 _____, (1946) "Managers Discuss Wage Incentives at All-Day Conference", *Manufacturing and Management* (hereafter *M&M*), Dec., pp.225-7; - (1944) "Rewards for Individual Initiative", *M&M*, Nov., p.9; Duncan,W. (1949) "Incentives in Industry", *Current Affairs Bulletin*, vol.3, no.13; McLeish,D. (1961) "Incentives in Industry", unpublished address to the Australian Institute of Management, p.4.

20 Wright,C. (1989) "The Management Consultant and the Introduction of Scientific Management in Australian Industry", in Bray,M. & Kelly,D. (eds.) *Issues and Trends in Australasian Industrial Relations. Proceedings of the 4th Biennial AIRAANZ Conference*, Association of Industrial Relations Academics of Australia and New Zealand, Sydney, pp.227-255.

21 Scott,W. (1955) "Financial Incentives - Why and How", *Personnel Practice Bulletin* (hereafter *PPB*), vol.11, no.2, p.15.

"Scientific" incentive schemes provided for the payment of a bonus once a worker had exceeded the output targets or standard times set by work measurement. A variety of incentive schemes had developed which stressed various relationships between worker performance and bonus. By far the most common scheme, and that applied by both Scotts and PA, was the "standard hour" plan, where bonus varied in direct proportion to output. Hence, a one per cent increase in output, attracted a bonus equal to one per cent of the award wage (see Figure 1). The benefits for management in such a scheme were twofold. First, overhead costs as a proportion of total unit costs fell as output increased. Second, and more importantly, while incentive pay followed output, it did so only above the newly constituted "normal" levels. In most cases, such "normal" quotas represented a substantial increase on traditional output levels.²² As a former methods engineer stated:

"The only way the high productivity came about was to measure what you could term a "norm", that is a normal day's work, rather than an average day's work. Once you had determined a norm then you could say, "well you can do 30 per cent better than that"...The thing was the norm was often 30-40 per cent above what they were doing as an average."²³

While straight proportional schemes, like the "standard hour" plan were the most widely applied, many firms introduced more regressive schemes, where bonus payments increased in lesser proportion to increases in output (see Figure 1). At Stewart and Lloyds for example, workers received a half per cent, and in some cases a quarter per cent increase in wages for a one per cent increase in output. A similar practice occurred under Email's bonus scheme. This meant bonus payments were substantially reduced, and labour cost declined dramatically as output increased. Further, where methods had changed and standards had become "loose", such systems acted as a buffer against ballooning bonus payments.²⁴

A central problem with all incentive schemes was the need to maintain standards and avoid changes in rates which undermined employee confidence. Given that the primary role of incentives was to gain the co-operation of the workforce with methods and work measurement, firms emphasised a variety of safeguards in the operation of their

schemes. These included: guaranteed minimum award earnings, provision for maintenance of bonus in the event of lost time, and the sanctity of rates against capricious change. In some cases, workers were able to appeal against "tight" rates, and request the job be retimed.²⁵

22 Grant,A. (1983) *Against the Clock, Work Study and Incentive Schemes*, London, Pluto Press, pp.76-88; "APM Bonus Scheme - Work Specification for Sheet Sorting Section", ANU Archives, N21/750; ILO, *op. cit.*, pp.7-9; Kangan,M. (1951) "Australian Experience with Wage Incentives", *BIPPP*, vol.7, no.2, p.9; interviews Hal Porter, former W.D.Scott & Co. Director, 24/11/1987, and Cliff Morrow, former W.D.Scott & Co. consultant, 10/2/1988.

23 Interview Bob Rowland, former Methods Engineer, Bradford Cotton Mills, 16/2/1988.

24 ILO, *op. cit.*, pp.10-12; interview Col Wass, former Head Methods Engineer Stewarts & Lloyds, 15/12/1987; "Brief Outline of Newcastle Bonus Settings" & "Bonus Policy" 25/8/1952, Personnel Dept. Records, Tubemakers Ltd; "Application of Time Study and Incentive Payment", 19/12/1952, Personnel Dept. Records, Email (Orange).

25 Kangan (1951), *op. cit.*, pp.7 & 13; Ferguson,E. (1956) "Problems of Operating Wage Incentive Plans", *PPB*, vol.12, no.3, pp.18-9.

However, management reserved the right to alter standards where new methods were introduced. PA's Work Specifications, for example, included a standard proviso that rates were:

"guaranteed against alteration except in the case of;

(a) change in material, equipment, methods or quality standards,

(b) mutual agreement between employees and management,

(c) a clerical error in the calculation of the standards."²⁶

In a number of cases, management used slight changes in the methods of production as an excuse to tighten rates where bonuses were considered excessive.²⁷

Another type of incentive used during this period were merit payments. In some firms elaborate merit rating schemes were introduced to evaluate worker performance upon a variety of criteria. For example, at Rocla Pipes, workers were rated by their foreman every six months. Categories assessed included the worker's physical capabilities, quality of work, productivity, care of Company property, and his attitude to work, discipline and other workers. Merit rating as a basis for bonus payments was more commonly applied to maintenance and supervisory employees whose direct output was more difficult to measure. Similar techniques were used at Colonial Sugar Refineries, Australian Consolidated Industries, and STC.²⁸

However, in many firms merit payments were rarely this sophisticated, consisting simply of flat weekly payments to workers considered worthy by their general behaviour. In some small firms, these payments were an important part of the paternalistic approach of the works manager or entrepreneur.²⁹

Profit sharing was another payment system used by employers during the post-War years aimed, as one manager pointed out, to "develop a feeling of belonging...so that each employee would work as a partner for the welfare of the organisation". Again the sophistication of such schemes varied. In some firms, a percentage of profits was added to regular wages and distributed periodically. In others, a part of the firm's profits was accumulated in a trust fund to act as a pension for employees on retirement. In some cases, the allocation of profit shares to individual workers was determined by merit rating. For example, at Jacques Bros. Ltd., payments were determined on the supervisor's opinion of the worker's industry, co-operation, quantity of work, and initiative. A similar practice was used at

26 "APM Bonus Scheme - Work Specification for Sheet Sorting Section", ANU Archives, N21/750, p.4.

27 DLNS (1959), *Wage Incentives in Australian Industry, Principles and Cases*, Commonwealth of Australia, pp.52-3; "Boot Trades Federation, Factories Working on Incentives", ANU Archives, N21/751, p.2.

28 Fitzpatrick,F. (1947) "Formulating a Company Personnel Policy", *BIPPP*, vol.3, no.4, p.7; "Survey of Merit Payments - CSR Chemicals P/L", AA Series SP666, item 54/1265; Wills,D. (1948) "Principles of Merit Rating", *M&M*, May, pp.370-1; "Employee Rating System - STC P/L", AA Series SP 146, item 597/4/12; "Merit Rating Survey", AA, Series SP 666, item 54/1265.

29 "Crompton Parkinson (Aust.) P/L", AA Series SP 146, item 575/6/7; "George Hudson P/L" AA Series SP 146, item 604/4/10; "Josephson & Son", AA Series SP 146 item 597/4/16.

Welded Products Ltd., where the worker's attendance, punctuality, and productivity determined the sum received.³⁰

In an effort to limit labour turnover and absenteeism, some employers also introduced attendance bonus schemes. In many firms these consisted of flat over-award weekly payments on condition of employees attending work for a minimum period each week. For example, at the bedding manufacturers John Lawler & Sons, workers in the fibre teasing section of the factory received 16 shillings per week provided they completed a minimum of 39 out of the 40 working hours. Other firms specified full weekly attendance for the payment of the attendance bonus.³¹

In some industries, elements of different incentive systems were combined. For example, the large automobile manufacturers introduced incentive payments based on length of employment and attendance. At GM-H, a Service Loading Payments Plan was introduced during the late 1940s. This consisted of incremental over-award payments based on an employee's length of service with the Company. Such payments were, however, subject to deductions for "lost time" determined by management, including strikes or stoppages of work, absenteeism or lateness. Similar schemes were introduced by Ford and Chrysler.³²

EXTENT OF APPLICATION

Existing survey data suggests that during the post-War decades, payment systems were used by a significant proportion of Australian manufacturers. The first major study of the extent of incentive payment schemes was undertaken by the Commonwealth Statistician in 1949. In a survey covering 25 per cent of employees in private industry, it found that over 33 per cent of the manufacturing workforce received some form of incentive payment. 17 per cent of the workers in manufacturing were paid bonuses based on output, and 16 per cent received bonuses based on merit, attendance, profit sharing or some other criterion of performance. These figures compared favourably with overseas estimates of incentive payment use. For example, a 1947 British survey found that 26 per cent of British manual workers were paid some form of bonus. Similarly, a 1946 US survey indicated that about 30 per cent of American manual manufacturing workers received incentive payments.³³

A more detailed analysis of the extent of wage incentives was undertaken by the DLNS in 1969. This involved a questionnaire survey of over 1,300 firms representing the

30 Kangan,M. & Byrt,W. (1948) "Profit Sharing in Australian Industry", *BIPPP*, vol.4, no.2; Hurley,W. & Wickham,O. (1951) "A Review of Australian Profit-Sharing Practice", *BIPPP*, vol.7, no.3; "Investigation of Profit Sharing - P.J. Firth P/L", AA Series SP 146, item 575/3/10; - (1949) "Many Benefits from Profit Sharing at Jacques", *M&M*, Aug., pp.39-40; "Welded Products Ltd.", AA Series SP 146, item 575/3/10.

31 "John Lawler & Sons P/L", AA Series SP 146, item 575/7/3; "Lucy Secor (Holdings) Ltd.", AA Series SP 146, item 597/4/23; "Sidney Williams & Co. P/L", AA Series SP 146, item 575/7/3.

32 General Motors-Holden's Ltd. (1950) *Service Loading Payments Plan for All Wage Employees*, Melbourne; "General Motors Holden Ltd.", AA Series SP 146, item 575/6/7, p.2; Vehicle Builders Employees Federation records, Melb. Uni. Archives; Arrowsmith,J. & Zangalis,G. (1965) *The Golden Holden, The Story of General Motors in Australia*, Melbourne, International Bookshop, pp.45-6.

33 _____, (1950) "Incentive Payments in Australian Industry", *BIPPP*, vol.6, no.1.

manufacturing, building, finance and retail sectors. It too found that wage incentives were relatively common in manufacturing industry. For example, 47 per cent of manufacturing firms surveyed used some form of wage incentive scheme, as opposed to 31 per cent of non-manufacturing firms.³⁴

The findings of this 1969 survey reinforced the contention that the use of incentive payments in Australian industry was on a par with overseas experience. For example, the survey found that 31 per cent of Australian manufacturing employees received incentive payments. This compared with a 1961 British survey that found 42 per cent of manufacturing employees were paid by results, and a 1958 US survey estimate that 27 per cent of production workers in manufacturing received such payments.³⁵

However, the extent of use of incentives was not constant throughout manufacturing. Both surveys revealed significant variations between industries in their overall use of incentives and the types of schemes applied.

The findings of the 1949 survey are outlined in Figure 2. As can be seen, incentives were found to be most common in the textile industry (63 per cent of employees receiving bonuses), while industries such as food, drink and tobacco (20 per cent) and wood and furniture (22 per cent) used these techniques less frequently. Output based incentives were particularly common in the textiles (40 per cent) and clothing (25 per cent) industries. In contrast, output based incentives were less frequent amongst firms in the food, drink and tobacco group of industries (8 per cent). Other industries relied more on non-output related incentives. Hence, in paper and printing, only 9.5 per cent of workers received output based bonuses, while 20.8 per cent were paid bonuses calculated on other measures of performance.³⁶

Similar findings were described in the 1969 survey (see Figure 3). Incentives were found to be most frequently used in the textiles, clothing and footwear (TCF) group of industries, with 70 per cent of firms using these techniques, and 56 per cent of employees in these industries receiving incentive payments. In contrast in the food, drink and tobacco (FDT) group, only 44 per cent of firms used incentives, and 13 per cent of employees received incentives.³⁷

The later survey also demonstrated the significant variations in the type of incentive schemes used by different industry groups (see Figure 4). Hence, while output and standard time systems were most common in the TCF group (81 per cent of firms), these were less common in the vehicle and ships (36 per cent) and the FDT (51 per cent) groups. Industry variations in the use of "scientific" incentive schemes are also illustrated in Figure 5, which shows the percentage of firms in different industry groups using work measurement and

34 The findings of the 1969 survey are reported in, Gunzburg,D. (1969) "Wage Incentives in Australia 1 - Extent", *PPB*, vol.25, no.4, pp.274-287; Gunzburg,D. (1970a) "Wage Incentives in Australia 2 - Operation", *PPB*, vol.26, no.1, pp.10-24; Gunzburg,D. (1970b) "Wage Incentives in Australia 3 - Effects", *PPB*, vol.26, no.2, pp.83-92.

35 Gunzburg (1969), *op. cit.*, pp.277-8; Behrend, *op. cit.*, p.96.

36 _____, (1950), *op. cit.*

37 Gunzburg (1969), *op. cit.*, pp.276-8.

method study practices. Once again the greatest use of these techniques occurred in the TCF group (90 & 80 per cent respectively), whereas the vehicles and ships and the FDT industries used these techniques least frequently.

The 1969 survey also highlighted the use of different types of incentive schemes for different groups of workers (see Figure 6). Amongst direct production workers, output and standard time systems were the most commonly used incentives, with merit, profit sharing, and other schemes being used less frequently. In contrast, merit based schemes were more common amongst maintenance, technical and supervisory employees.³⁸

These general findings are supported by more detailed empirical analysis of a sample of unpublished DLNS reports on labour management practices in 144 manufacturing establishments (see Figure 7). Output based incentives (including time study based schemes) were again most commonly found amongst firms in the textile, clothing and footwear industries (100 and 70 per cent respectively). Within the metal industries significant variations occurred in the type of incentives used. For example, time and motion study based incentives were particularly common amongst firms involved in electrical appliance and equipment manufacture, the vast majority of these being foreign firms. In contrast, time study schemes were relatively rare amongst other sections of the metal industries, with greater emphasis being placed on standard output or attendance based schemes, profit sharing, or no incentives at all.³⁹

The later survey also suggests that the use of incentive schemes was more common as firm size increased (see Figure 8). In part, this reflected the greater resources of large firms to absorb the administrative and clerical costs necessary in introducing and running "scientific" incentive schemes. Analysis of the client lists of management consultants suggests they were most commonly employed by large firms. However, firm size was not a definitive factor in the adoption of all wage incentive schemes. As has been demonstrated many small firms also introduced various types of incentives although these tended to be less systematic and more reliant upon ad hoc shopfloor control.

IMPACT ON WORKPLACE INDUSTRIAL RELATIONS

The most noticeable effect of the introduction of wage incentives were the dramatic increases in production that resulted. An early survey by the Institute of Industrial Management (later AIM) found that through the use of incentives, output increased by as much as 20 to 50 per cent. Later studies by the DLNS of various incentive schemes found increases in output of up to 100 per cent. Amongst the management consultants, increases in production of 50 to 70 per cent were regarded as normal. For example, within three months of PA introducing time study and incentives at British Tube Mills, output increased in two mills by 45 per cent, and in another mill by 20 per cent. At the textile mills of Davies Coop & Co., following the

38 *Ibid.*, pp.280-1; Gunzburg (1970a), *op. cit.*, pp.11-2.

39 These reports are held in the Australian Archives holdings of DLNS records, see in particular SP 146.

introduction of work measurement by Scotts' consultants, output increased on average by over 50 per cent.⁴⁰

Increases in output led to substantial reductions in labour cost. While incentives linked employee earnings to increases in production, under "scientific" schemes this occurred only above the newly constituted effort norms set by work measurement. Labour cost savings were even more pronounced under regressive schemes. Labour cost savings varied widely between firms. For example, at the Aviation Manufacturing Co., unit labour costs fell by between 7 and 54 per cent for various jobs, following the introduction of time study based incentives. In a study by the DLNS of two sections of a light engineering firm, labour costs were reduced by 28 and 63 per cent respectively.⁴¹

While some writers have argued that incentive payments constituted only a small component of workers' overall wage earnings, evidence from a number of industries suggests bonus payments were indeed significant. Under the "standard hour plan" standard performance usually attracted a bonus of about a third of the award wage. While firms commonly varied the wage/output relationship, survey data suggests average incentive earnings in most industries amounted to about 20 per cent of award wages. There were, however, differences between industries. For example, the merit payment systems used by the large automobile manufacturers were renowned for their low payments, based on strict bonus penalties for absenteeism. The 1969 DLNS survey found that in six of these systems, average incentive payments amounted to less than ten per cent of the award wage. In contrast, the survey found that among textile manufacturers, incentive payments commonly exceeded 40 per cent of their total wage and salary bill.⁴²

Incentives also had some impact on labour turnover and absenteeism. At J. Fielding & Co., labour turnover prior to the introduction of an incentive scheme by PA was up to 200 per cent per year. Several years after the introduction of the scheme, this rate had dropped to 15 per cent, a level significantly lower than industry averages. Similarly, in a DLNS study of a small textile firm, annual labour turnover was reduced from 140 per cent to 33 per cent following the firm's introduction of wage incentives based on time study.⁴³

The introduction of incentive schemes was also commonly marked by the establishment of some means of workforce consultation. Management consultants in particular emphasised the need to involve workers in the introduction of wage incentive schemes. For example, in the textile industry, Scotts held methods engineering courses for union officials, and

40 IIM (1949) *Wage Incentives in Operation in Industry in Victoria*, Research Report No.3, Melbourne, pp.7-8; Kangan (1951), *op. cit.*, p.7; DLNS (1959), *op. cit.*, pp.56-7, pp.67-8, 84-5, 91, 105-6; Scott (1950), *op. cit.*, pp.573-582; - (1947) "Labor Shortage and Wage Incentive Plans", *M&M*, Nov., pp.176-7; interviews Bob Rowland & Col Wass, *op. cit.*

41 "Case Study of Wage Incentives - Plan at Aviation Manufacturing Co.", AA Series SP 146, item 575/8/3, pp.19-20; DLNS (1959), *op. cit.*, pp.33-4 & 57.

42 Littler, Quinlan & Kitay, *op. cit.*, p.512; Gunzburg (1970), *op. cit.*, pp.18-20; re penalties in automobile industry attendance plans see GM-H (1950), *op. cit.*, pp.7-8; ACTU Minutes re Ford Plus Payment Plan, 4/12/1957, MWU Records; Arrowsmith & Zangalis, *op. cit.*, pp.45-6.

43 "Report of the Case Study of Wage Incentives at J. Fielding & Co.", AA Series SP 666, item 54/727; DLNS (1959), *op. cit.*, pp.69, 86, 92.

discussed the introduction of new work loads and incentives with workers. Similarly, PA set up Work Study teams which included representatives from the workforce and unions.⁴⁴

One of the most defined policies of workforce consultation occurred at Bradford Cotton Mills, where methods engineers, production and personnel management, initially discussed changes with shop stewards. A meeting was then held with the workers affected, and the new work loads and rates were outlined. After reaching an agreement with the workers concerned, the new rates were implemented for a one month trial period after which either party could review the proposals. A similar approach was taken at AWA, where management trained ETU shop stewards in time study and incentive techniques, in order to aid workforce acceptance.⁴⁵

Some firms also introduced joint consultative committees to aid in the administration of incentive schemes. At the Aviation Manufacturing Co., joint committees were established in each production section to act as "watch-dogs" over bonus payments. However, while such committees concentrated on incentives, the method by which standards were set was excluded from scrutiny. The "scientific" nature of work measurement implied objective and non-negotiable effort norms. Indeed, joint consultation and bargaining over bonus rates were more common in traditional piece-work schemes where work measurement was absent.⁴⁶

Further, consultation was not a general phenomenon. In many firms, management sought to limit union involvement in their wage incentive schemes. At Stewart & Lloyds, while management adopted an open policy in the discussion of individual disagreements over incentive earnings, they consistently refused to discuss incentives issues with union officials, in line with traditional steel industry policy. A similar approach was taken by the large automobile manufacturers, who regarded the question of incentive payments as an area of total management prerogative.⁴⁷

Supervisors and foremen had varied reactions to the introduction of wage incentives. In some firms, line management welcomed the changes. Formalised work standards provided the foreman with measures which aided control over daily production. Further, incentives relieved the foreman of the need to "drive" output from the workforce. Workers enforced a

44 Interviews Arthur Bocking former PA Consultant, 20/3/1988, Bill Lambert former AEU shop steward at APM, 29/11/1988, & Keith Fifer, *op. cit.*; "Report of the Case Study of Wage Incentives at J.Fielding & Co.", *op. cit.*, p.5; "Report - Incentives in Australian Industry, Work Study Officer, Pulp Paper Workers' Federation, 17/9/1957", Miscellaneous Workers' Union Records.

45 "Company Policy Manual - Incentive Policy", Personnel Dept. Records, Bradmill Ltd., pp.3-4; interviews Daphne Webster, former Personnel Manager Bradford Cotton Mills, 18/5/1988, Cliff Morrow, Hal Porter, & Keith Fifer *op. cit.*; "AWA Incentive Scheme", ANU Archives, N21/751 & interview David McLeish, former ETU official, 23/2/1988.

46 "Case Study of Wage Incentives - Aviation Manufacturing Co.", *op. cit.*; DLNS (1959), *op. cit.*, pp.29-30 & pp.39-41; "Survey of Wage Incentives - David Jones", AA Series SP 666, item 54/695; "Investigation into Factory Committees - New Era Shirt Co.", AA Series SP146, item 575/5/4.

47 "Brief Outline of Newcastle Bonus Settings", p.3, "Production Bonus 18/3/1947", various correspondence re 1958 time study dispute with the Moulders' Union, Personnel Dept. Records, Tubemakers Ltd; 90 CAR 526-7; interview Col Wass, *op. cit.*; VBEF Records, Melbourne Uni. Archives.

self-imposed work discipline in order to maximise their bonus earnings.⁴⁸ As one report stated:

"Foremen generally argued on various grounds that the individual wage incentives made supervision easier. They claimed that employees tended to set themselves targets of daily output representing a certain desired bonus and to work steadily until that target was reached. Under straight time-wages some employees, not caring how little they produced in a day, stopped work at the slightest pretext, or disturbed others by talking unnecessarily. This did not often happen on individual incentive work. Foremen thought people working on wage incentives tended to be disciplined by the scheme, thus making the foreman's task easier."⁴⁹

However, incentives also placed constraints on the foreman's control of the shopfloor. While incentives eased the need to supervise output, they also led to an increase in clerical work in administering the scheme. Incentives also provided a constant source of worker complaints regarding "tight" rates, bonus discrepancies, machine breakdowns, and the supply of materials. More directly, the introduction of work standards under "scientific" incentives highlighted departmental inefficiencies.⁵⁰ As a former methods engineer recalled:

"Once you'd set standards it created a big whip for the senior management to tell the managers to get moving. They could look at a piece of paper two days after the working week and say, 'You should have done ten per cent better than that, I want an improvement'. They knew it was measured, and that led to a lot of conflict with the methods engineers because it created hard work for the management...they were constantly under pressure to perform against measured standards."⁵¹

In some firms, line management resisted the introduction of incentives. At STC, opposition by managers limited the application of the Company's bonus system in particular departments. Nor was such a situation uncommon. In a late 1950s survey of firms using management consultants, over 60 per cent reported supervisor resistance to the introduction of new practices such as incentives as a major problem.⁵²

48 Interviews Ron Hinton, former Production Engineer James Hardie Ltd., 28/10/1987, & Bob Rowland, *op. cit.*; "Survey of Wage Incentives" (Bonds Inds., Telephone & Electrical Inds., David Jones, Aust. General Electric), AA Series SP 666, item 54/695.

49 Horne, R. (1951) "Wage Incentives in Operation - Case Study No.5", *BIPPP*, vol.7, no.1, p.20.

50 "Wage Incentive Case Study - STC" Draft Report, p.29 & visits 7/5/1954 & 11/5/1954, AA Series SP 666, item 54/727; DLNS (1959), *op. cit.*, p.107; "Bradford Cotton Mills - Management Conference, 1958" p.50, Personnel Dept. Records, Bradmill.

51 Interview Bob Rowland, *op. cit.*

52 Wright (1989), *op. cit.*, p.239; Danby, L. (1950) "Problems of the Time Study Man", *M&M*, July, pp.23 & 25; "Wage Incentive Survey - STC", AA Series SP 666, item 54/695, p.2; Perry, P. & York, L. (1957) *A Study of Management Consultants in Australia*, Sydney, John Lee & Sons, p.36; interviews Bob Stevenson, former Production Manager, Email Ltd., 16/12/1987 & David McLeish, *op. cit.*

THE ROLE OF THE STATE

While a number of writers have argued that the state through the arbitration system impeded the application of alternative payment systems, there is significant evidence that the state acted in support of the broader use of these techniques.⁵³

During the post-War years, the Federal Government actively advocated the use of incentive wage schemes. For example, the Chifley Labor Government viewed incentives and payment by results as vital components in the drive to improve national productivity. Initially, the Government had been loathe to publicly promote such techniques for fear of antagonising the union movement. In formulating the White Paper on Full Employment in 1945, the Minister for Labour and National Service, E.J. Holloway, and a number of other ministers emphasised the need to avoid becoming involved in any controversy over incentives. However, this initial hesitancy soon withered and with the prospect of the introduction of the 40-hour week, Government ministers became vigorous advocates for the broader use of incentives in industry.⁵⁴

The Chifley Government played a central role in attempts to change ACTU policy towards incentives. In August 1947, a tripartite "Better Industrial Relations Conference" was held under Government auspices, at which union acceptance of wage incentives became a central issue of discussion. In 1948, the Government through the Federal Labour Advisory Committee, lobbied the ACTU to investigate the incentives issue so it could be discussed at the forthcoming ACTU Congress. The Labor Government's open support for incentives led not only to a re-examination of ACTU policy, but also heightened employer awareness of this issue.⁵⁵

Arbitration tribunals also actively supported the use of incentive wage schemes. In the Forty Hours' Case in 1947, the Commonwealth Court pointed to the broader use of modern incentive schemes as a significant factor in industry's ability to absorb a reduction in working hours. Individual judges also emphasised the need to remove restrictions on their power to approve bonus schemes. Arbitration's support of productivity also continued in later years. During the 1966 Metal Trades Work Value Case, the Commonwealth Commission noted the extensive use of incentives amongst process work, and argued their use was in the best interests of not only employers, but employees and industry as a whole.⁵⁶

In a number of industries, arbitration tribunals regulated incentive schemes. A number of awards included provisions that bonus workers earn not less than the minimum time wage, or more commonly that they be guaranteed of earning a percentage above time wages. For

53 For examples of the argument that arbitration has limited the use of payment systems see Littler, et. al., *op. cit.*, p.512 & Bongarzoni & Compton, *op. cit.*, pp.135-6.

54 Sheridan, T. (1989) *Division of Labour, Industrial Relations in the Chifley Years, 1945-49*, Oxford Uni. Press, pp.41-2; DLNS (1949), *A Review of Wage Incentive Practice*, Commonwealth of Australia, pp.5-6.

55 Sheridan (1989), *op. cit.*, pp.41-2, 49 & 63; - (1949) "Incentive Payments...Statement by Prime Minister", *M&M*, March, p.301; *AEU/MJ*, Oct. 1947, p.18.

56 Re arbitration support for incentives see 59 *CAR* 581 at 601; 57 *CAR* 101 & "Bonus in Industry Plan; Suggestion by Judge", *The Sun*, 29/7/1946; re Work Value Case see 121 *CAR* 587 at 680.

example, the Textile Workers Award provided that tasks be set so that workers of average ability be capable of earning at least 15 per cent above time wages for their occupation. Such provisions grew out of earlier regulation of piece and task work systems of payment, and aimed at preventing incentive workers from being disadvantaged through their participation in such schemes.⁵⁷

In some cases, arbitration imposed specific limitations on management practice. For example, in the clothing industry, following a dispute over the use of time study in 1949, the Commonwealth Court prohibited the use of stopwatches in rate-setting unless agreed to by union officials. Conciliation Commissioner Findlay argued that because time study was not widely used by clothing employers at this time and such practices caused serious irritation, they should not be used without union consent.⁵⁸

However, the extent and nature of such regulation varied widely. Given the over-award nature of most incentive schemes, arbitration tribunals generally upheld managements' right to apply these techniques, and argued they were areas of management prerogative. For example, in a dispute against the use of incentives at Australian Paper Manufacturers (APM), Conciliation Commissioner Dwyer pointed out that the Company was not proposing to introduce a system of payment of results in lieu of award rates, rather to pay employees wages in excess of the award minimum. As a result, the scope for intervention by arbitration tribunals was limited.⁵⁹

Arbitration tribunals also exhibited varying interpretations of the minimum bonus payments provisions, and sometimes differed over the validity of employers excluding award wage increases when calculating bonus earnings. The tribunals commonly upheld management determined work quotas, despite union complaints of rate-cutting. For example, in a dispute at the Melbourne mills of Davies Coop over the introduction of new rates, the Commonwealth Commission after investigating the work, agreed with management that incentive payments provided a just return to workers. Similar decisions were handed down in disputes over work intensity at other textile manufacturers such as Bradford Cotton Mills and Dri-Glo Towels. In a number of instances, arbitration tribunals excused such rate-cutting because of a company's financial difficulties. Despite the inequity of reductions in incentive earnings, the tribunals argued it would be impracticable to worsen a company's financial situation through ordering the maintenance of bonus rates.⁶⁰

57 Mills, C. (1969) *Industrial Laws, New South Wales*, 3rd ed., Sydney, Butterworths, p.190; Byrt (1954), *op. cit.*, pp.8-9; Walker, K. (1949) "Wage-Incentive Plans: A Review of Award Provisions", *BIPPP*, vol.5 no.2, pp.31-4; re Textile Award provisions see 43 *CAR* 342-3.

58 64 *CAR* 240; "Survey of Wage Incentives - David Jones", AA Series SP 666, item 54/695, p.1; Ellem, *op. cit.*, p.254.

59 "Transcript of Proceedings before J.V. Dwyer, Conciliation Commissioner, 12/2/1953", ANU Archives, N21/750, p.3.

60 Re varying interpretations of bonus provisions see dispute at Kelvinator 15 *Industrial Information Bulletin* (hereafter *IIB*) 926-7 & dispute at John Sackville and Sons 26 *IIB* 845-6; re Davies Coop dispute see 88 *CAR* 284-6; 12 *IIB* 274-5, 400, 508-9, 615-6 & 893; re Bradford Cotton dispute see 14 *IIB* 498 & 757; re Dri-Glo Towels see 8 *IIB* 412; re support for rate-cutting given financial state of company see dispute at Ellis & Sutton P/L., 20 *IIB* 260; also dispute at Fairfield Electric Wire Co., 23 *IIB* 1890-1.

Further, far from limiting management action, provisions regulating payment systems in many cases opened the way for the broader use of these practices. For example in 1957, the Commonwealth Commission at the request of employers introduced a separate section in the Clothing Trades Award regulating bonus systems. In the years following the introduction of the new provisions, the Union witnessed a rapid expansion in the use of time and motion based incentive schemes. While the Commission had introduced a variety of safeguards including minimum above-award payments and provision for consultation with workers over rate changes, clothing union officials complained of the unilateral manner in which rates were altered, and that employers flaunted the award prohibition of stopwatches. In 1960, given the growth in the use of time study, the Commission abandoned its earlier stopwatch ban, arguing that such a clause was "unrealistic in present day circumstances". In subsequent decisions arbitration tribunals upheld the right of clothing manufacturers to introduce time study based incentive schemes. This culminated in a decision by the Commonwealth Commission in 1970 to revoke the guaranteed minimum incentive payment of ten per cent above award rates, claiming that such a provision was a contradiction of the concept of payment by results.⁶¹

While award limitations on incentives were rarely enforced, arbitration tribunals did sometimes intervene in the regulation of such schemes where their administration was considered unjust. For example in a dispute at the Sydney factory of Cable Makers Pty. Ltd. in 1962, the Commonwealth Commission criticised a number of aspects of the Company's incentive scheme. In particular, the Commission noted that management based time studies on the fastest workers, ignored increases in time wages in calculating bonus earnings, failed to periodically check time standards, and introduced changes in rates following relatively minor alterations in production methods. Similarly, in a bonus dispute at Stewarts and Lloyds, while the Commission upheld the Company's right to time study workers, it criticised management's practice of refusing to divulge the particulars of their scheme to union officials and recommended they adopt a more open and bargained approach in order to lessen conflict over incentive earnings.⁶²

During the late 1960s, the NSW Industrial Commission also demonstrated an increasingly interventionist approach following extensive bonus disputes in the steel industry. Up until this time, the NSW Commission had adhered to the view that the determination of the details of such schemes was entirely a management prerogative and not a matter of right for employees or negotiation with unions. This position was substantially amended in 1967, when an application by Australian Iron & Steel for the deregistration of the steel works unions was dismissed, and the Company criticised for refusing to confer with unionists over bonus issues. In 1971, the jurisdiction of the Commission to deal with bonus disputes was re-

61 Re the introduction of bonus clause in the Clothing Industry Award see 87 *CAR* 327 at 338 & 366; see also "C System Incentives" & "Stanley Simpson & Sons Pty Ltd", Clothing and Allied Trades Union Records, Melbourne Uni. Archives; re demise of stopwatch ban see 95 *CAR* 549 at 566 & Ellem, *op. cit.*, p.256; re arbitration support for incentives see 22 *IIB* 1469-70 & 133 *CAR* 743; re removal of the minimum ten per cent clause see 133 *CAR* 743 at 759-64, 1970 *Australian Industrial Law Reports* (hereafter *AILR*) Rep.436 & Ellem, *op. cit.*, p.283.

62 Re Cable Makers dispute see 99 *CAR* 772; re Stewarts and Lloyds see 90 *CAR* 526 and Transcripts of Proceedings of the CCAC, Stewarts and Lloyds and the Federated Moulders' (Metals) Union (No.132 of 1958), Personnel Dept. Records, Tubemakers Ltd.

examined. It rejected earlier precedent limiting its involvement in this area, and upheld interim judgements supporting the intervention of the tribunals. The 1971 decision led to a much greater role for arbitration in bonus disputes and resulted in a spate of cases in other sections of the steel industry.⁶³

LABOUR RESPONSE TO PAYMENT SYSTEMS

Despite initial suspicions, workers in many industries accepted bonus payments. For many workers financial considerations became increasingly important during the post-War period. Expanding consumerism, demonstrated by the growth in home ownership and hire purchase, fuelled income expectations. For migrant workers, the importance of income was exacerbated by the financial burdens of immigration. Not surprisingly then, bonus earnings were readily accepted by many semi-skilled workers, becoming an accepted component of weekly wages and a major means of raising living standards.⁶⁴

Nevertheless, worker attitudes to incentives varied widely. In a number of early DLNS investigations, employee reactions were generally favourable. However, later surveys suggested some disaffection with wage incentives. For example, while in one factory, 93 per cent of workers stated they preferred to work under a bonus scheme, in another firm over two-thirds of workers opted for fixed wages. Variations in worker attitudes reflected the differing earning capacities of individual employees under incentive schemes. In process work in particular, those employees capable of adapting to the highly repetitive manual nature of the work, were able in some instances to double their earnings. In other cases, favourable employee attitudes to incentive schemes in particular firms reflected a broader history of harmonious management-labour relations.⁶⁵

In many cases, workers appeared willing to suffer the disagreeable aspects of incentives in return for increased earnings. For example, at the Aviation Manufacturing Co., while some workers were apprehensive of possible speed-up, retrenchment, and discrimination against older workers, the majority nevertheless accepted the Company's scheme. Earnings increases amongst bonus workers soon led to other sections of the workforce petitioning management for their inclusion within the scheme. Similarly, in the automobile industry, while

63 Mills, C. *op. cit.*, pp.190-3; re earlier position on intervention in bonus issues see 42 AR 241 at 244; re 1967 decision see 67 AR 141, 1967 AILR Rep.159, & 22 IIB 514-6; re 1971 decisions re jurisdiction see 71 AR 194, 230, 338 & 754.

64 McLeish, D. (1965), "Union View of Work Study", Paper Presented to the Institute of Industrial Engineers, p.19; Callus, R. (1979) "Employer Policies for the Management of a Multi-Ethnic Workforce: A Critical Examination", *JIR*, Dec., pp.430-2; interview David McLeish, *op. cit.*

65 Re favourable responses to incentive schemes see, DLNS (1959), *op. cit.*, pp.88 & 93, also interviews with workers in "Report of Case Study, J.Fielding & Co.", *op. cit.*; re more varied responses see, Smith, R. (1966) "Case Studies on Wage Incentives: No.1", *PPB*, vol.22, no.1, p.39 & Deacon, J. (1966) "Case Studies on Wage Incentives: No.2", *PPB*, vol.22, no.3, p.69; re process worker earnings see "Champs on the Job", *J&J Staff News*, Dec. 1953; interviews Ian Fraser, former Works Manager Fibre Containers Ltd., 30/3/1988, & David McLeish, *op. cit.*

workers complained of the inequity of deductions in bonus for lateness or absenteeism, they nevertheless accepted bonus payments in spite of union calls to reject such schemes.⁶⁶

In many cases workers actively chased bonus earnings. In some firms, workers were so keen to increase their production that they started work before official hours and gave up tea and rest breaks. Workers also advised supervisors of potential machine breakdowns and material hold-ups that impeded production and hence limited bonus earnings.⁶⁷ As a former methods engineer stated:

"They had a good idea how well they were doing. If the materials were giving trouble, they soon let us know, this was another form of control through incentives...You'd get hour by hour control in fact, because the worker would sense, 'I'm having trouble today', and tell the supervisor 'check up on that batch of stuff we're getting, otherwise we'll lose efficiency and bonus'.⁶⁸

Workers also complained that incentives led to shopfloor hostility and a "dog eat dog" atmosphere. In one firm surveyed by the DLNS, 50 per cent of workers argued that bonus inequalities created bad feeling in the factory. Migrant workers in particular bore the brunt of such animosity, with some employees arguing that they were "hungry for every penny they can get". Workers were also divided on the issue of whether such schemes forced them to work harder. In some cases, workers complained that unrealistic standards had been set, and that many were willing to injure their health in the drive to increase their earnings. In contrast, others argued they worked no harder but in a more consistent fashion, and that the incentive system provided goals in otherwise monotonous jobs.⁶⁹

While many semi-skilled workers accepted incentives, this did not necessarily imply total harmony in the application of these techniques. Indeed, in many firms industrial conflict was commonplace in the day-to-day running of such schemes.

Disputes occurred over a number of issues. One of these was the question of "tight" rates. While workers in many factories accepted time study as the appropriate means of determining effort norms, this did not prevent numerous disputes over the fairness of individual rates. During the War, early pioneers in the use of time study, such as the rubber and tobacco industries, were particularly prone to disputes over rate-setting. In the post-War period, such disputes increased in frequency and spread to other industries as the use of output based incentives expanded. For example, at the electrical manufacturers STC,

66 "Case Study of Wage Incentives, Aviation Manufacturing Co.", *op. cit.*, pp.13-5; Arrowsmith, & Zangalis, *op. cit.*, pp.45-6; GMH "Service Loading Payments Plan...", *op. cit.*; ACTU Minutes "Ford Plus Payment Plan", 20/11/1957, 4/12/1957, 22/1/1958, 5/2/1958, 28/2/1958, MWU records.

67 Re worker requests for extension of scheme, "Brief Outline of Newcastle Bonus Settings", "Meeting of Bonus Committee, 22/10/1946", Personnel Dept. Records, Tubemakers Ltd., & "Record of Contact, British Tube Mills (Aust.) Ltd.", AA, Series SP 146/1, item 599/4/89, p.5; "Report of Case Study, J. Fielding & Co.", AA, Series SP 666, item 54/727, pp.10-1.

68 Interview, Bob Rowland, *op. cit.*

69 Deacon, *op. cit.*, p.69; "Wage Incentives Case Study, STC", *op. cit.*, pp.30-2; "Report of Case Study, J. Fielding & Co.", *op. cit.*, pp.12-3; "Case Study of Wage Incentives, Aviation Manufacturing Co.", *op. cit.*, pp.14-5; DLNS (1959), *op. cit.*, pp.59, 71 & 88.

workers commonly disputed rates and argued that it became increasingly difficult to make the standards set by the Time Study Department. Similarly, in the textile industry, a number of disputes occurred over rate changes that reduced bonus payments.⁷⁰

In response to rate "tightening", workers sought to increase their control over the setting and maintenance of standards of output. When being timed, workers commonly slowed their work pace, avoided their usual short-cuts or introduced unnecessary movements in order to secure easier rates. Workers also sought to protect or "nurse" loose standards from over-zealous individuals, sometimes establishing unofficial restrictions on workshop output. Such "dargs" were commonplace in the metal industries, in many cases surviving until automatic machine processes were introduced.⁷¹ As one union official recalled, far from being a unilateral process, the introduction of incentives involved implicit shopfloor bargaining:

"...their time and motion study experts would fix a rate and the workers would challenge it and say 'we can't meet it'. So they'd negotiate in a very stormy situation a new rate, but before very long they would achieve that rate. It was a sort of on-going process...as far as I was concerned, it was jolly good luck to the workers, because they were beating the employers at their own game and turning the system into a good thing as far as they were concerned."⁷²

Another source of disputation were differences in bonus earnings between employees. While workers had a limited understanding of the details of incentive schemes, they kept a close watch on their bonus earnings. Variations in earnings between workers quickly led to comparisons of work effort and complaints from aggrieved individuals of the inequity of the scheme. Such discontent was exacerbated where incentives undermined earnings differentials between trades and maintenance workers and those employed in direct production.⁷³

Union response to incentives varied from outright hostility to active participation. Differences in union policy and practice reflected not only the attitude of their members, but also differences in industrial strategy and ideology. Nor was union response static. Throughout the post-War decades, union policy towards these practices underwent significant change.

Union opposition towards incentives continued to be based upon traditional concerns such as unemployment through over-production, "speed-up", health and safety, and the threat to union organisation.⁷⁴ Further, unionists pointed to the fact that in industries where payment by

70 Re disputes over rates in the rubber ind. see, AA Series SP 401, item 247/3/140, AA Series SP 113/1, item 247/3/5, 68 CAR 681-2, 88 CAR 313-4 & 99 CAR 772-9; re tobacco ind. see, AA Series SP 401, item 247/3/125, AA Series SP 113/1, item 247/3/143, 50 CAR 372-3, 53 CAR 106-7, 55 CAR 378-9, 54 CAR 420-2, 60 CAR 167-8, & 51 AR 6-10; re STC see DLNS (1959), *op. cit.*, pp.103-5, "Wage Incentives Case Study, STC", *op. cit.*, pp.33-5; re textile industry see 88 CAR 284; 12 IIB 274, 400, 508 & 615; 14 IIB 498 & 757.

71 DLNS (1959), *op. cit.*, p.49; Kangan (1951), *op. cit.*, p.14; interviews David McLeish, Col Wass, Hal Porter & Ron Hinton, *op. cit.*

72 Interview Frank Bollins, former SMWU official, 14/4/1988.

73 Interviews Frank Bollins, David McLeish & Ian Fraser, *op. cit.*; "Survey of Wage Incentives - Sonnerdale Ltd. & STC", AA, Series SP 666, item 54/695; DLNS (1959), *op. cit.*, pp.59-60 & 70.

74 DLNS (1949), *op. cit.*, pp.25-6; Sheridan (1975), *op. cit.*, pp.52 & 54-6; Evans,W. (1957) "Union Attitude and Policy", in Oxnam,D. (ed.), *op. cit.*, pp.28-54.

results operated, arbitration courts had institutionalised lower award wages to take account of bonus earnings. Such lower rates, it was argued, threatened award wages generally in their capacity to flow-on into other industries. As a former union official stated:

"...it was a great challenge to our organisation in the sense that it had the effect of depressing wages and conditions, because of the system that operates in Australia of comparative wage justice. All of the incentive bonus schemes operating around Australia were operating to depress the level of real wages being paid in industries where incentive schemes were not operating. So it was pretty important philosophically as far as I was concerned to destroy as many incentive schemes as I possibly could and to oppose their introduction wherever I possibly could."⁷⁵

Practical opposition to incentives was strongest amongst craft unions, such as the AEU, Moulders' Union and Boilermakers Society. This reflected not only the superior bargaining power of the metal trades, given their monopoly over the supply of skilled labour, but their strong shopfloor organisation. Union publications stressed the dangers of these techniques, quoting extensively from overseas journals, referring to past battles, and highlighting local firms who were attempting to introduce these techniques.⁷⁶ In practice, union officials refused to have anything to do with the introduction of incentives or time study, rejecting them outright. As a former AEU official recalled:

"We had a few chats with consultants and ran them off the job, that was the nature of our approach. We didn't bother getting into lengthy negotiations, we just told them they weren't wanted...Sometimes we'd only find out after it had got started, in which case we would simply go down and insist on the union's policy being implemented. Drive them off the job, it was as simple as that, nothing very complicated about it."⁷⁷

AEU members were involved in numerous disputes over the introduction of work measurement and incentives throughout the post-War period. In a number of firms the threat of strike action was sufficient to thwart the introduction of these techniques. For example, at Nettlefolds Ltd. and Howard Auto Cultivators, AEU rejection of a management proposal to introduce incentives based on time study prevented the introduction of these techniques for a number of years.⁷⁸

Management attempts to introduce time study based incentives into maintenance areas of factories extended AEU opposition beyond the confines of the metal engineering industry. For example, at APM, management attempts to introduce work study and incentives into the

75 Interview Ray Gietzelt, former Miscellaneous Workers' Union official, 29/2/1988.

76 Sheridan, T. (1979) "Democracy Among the Aristocrats: Participation of Members in the Affairs of the AEU", *JIR*, June, pp.163-6; Quinlan, M. (1982), "Immigrant Workers, Trade Union Organisation and Industrial Strategy", unpublished PhD thesis, Department of Industrial Relations, University of Sydney, pp.577-8 & 604-5; "The Boilermakers' Society of Aust., Wage Incentive Systems" 25/5/1949, ANU Archives N21/445; "Time Study is Spinach", *AEU/MJ*, Jan. 1957, pp.7-8 & June 1946, p.5; 10 *IIB* 309 & 117-8, 21 *IIB* 834 & 948.

77 Interview Laurie Carmichael, former AEU official, 12/5/1988.

78 "Record of Contact - Nettlefold's Ltd.", AA Series SP 146, item 599/4/36, 13/10/1947, p.3 & 13/2/1950, p.2; *AEU/MJ*, Aug. 1947, pp.22 & 24, June 1948, p.14.

maintenance areas of their plants in the early 1950s, led to a protracted battle with metal tradesmen. After several years of resistance, the management eventually gave up attempts to study tradesmen, and agreed to the payment of a general efficiency allowance in lieu of a direct bonus.⁷⁹

However, despite the strong opposition of the metal trades to incentives, worker acceptance of these techniques in many industries undermined union opposition. One response amongst craft unions like the Boilermakers and Moulders, was to fine or expel members who accepted bonus payments. More commonly however, union officials turned a "blind eye" to members accepting bonus payments. For example, at Australian Crane and Excavator, despite the best efforts of the local organiser, AEU members accepted the PA system of work study based incentives, leaving local officials with little choice other than to ignore shopfloor practice.⁸⁰

The problem of worker acceptance of incentives was more pronounced amongst unions which covered semi-skilled workers. Not only were work measurement and incentives far more common in these industries, but large numbers of workers willingly accepted bonus payments in spite of union warnings as to their ill-effects. In these situations a union policy of non-participation commonly allowed employers to impose incentives free from any union restrictions.⁸¹

One alternative lay in unions adopting a more pragmatic approach in order to protect their members' interests. One union that demonstrated such an attitude was the SMWU. Like other metal unions the SMWU was strongly opposed to both time and motion study and incentive schemes. However the rapid increase in the use of incentives and growing worker acceptance during the post-War years, placed increasing strains on the Union's policy of strict opposition. As a former SMWU official recalled, while craft unions such as the AEU could maintain a policy of non-intervention, this ignored the widespread existence of these schemes in much semi-skilled work. As a result, while the SMWU remained strongly opposed to these techniques, it nevertheless sought to protect the interests of its members where they chose to accept incentives.⁸²

SMWU involvement in the operation of incentive schemes occurred over a number of issues. For example, at Union Carbide and Sunbeam, SMWU officials organised regular stop-work

79 *AEU/MJ*, Nov. 1952, p.31, May 1953, p.21, Aug. 1955, pp.27 & 29, Sept. 1955, pp.28 & 29, Oct. 1955, p.6, Jan. 1958, p.5; interview Jack Bird, former AEU shop steward at APM, 15/11/1988.

80 Re craft union discipline see "Dispute at Goninan's", AA Series SP 113/1, item 247/3/152, & Quinlan (1982), *op. cit.*, pp.577-8; re examples of AEU acceptance of incentives see Cruise, H. (1957) "Some Restrictive Practices in Australia: Their Extent, Effect, and Origin", in Wilkes, J. (ed.) *Productivity and Progress*, Sydney, Angus & Robertson, p.258; "AEU Bonus Payments", Personnel Dept. records Comsteel Ltd.; interview Arthur Bocking, *op. cit.*

81 Re examples of non-intervention see, "Wage Incentive Survey - Tecnico Ltd. & J. Fielding & Co.", AA Series SP 666, item 54/695; Transcript of Proceedings of CCAC, Stewarts and Lloyds & The Federated Moulders' (Metals) Union (No.132 of 1958), Personnel Dept. records, Tubemakers Ltd., p.10; Kangan (1951), *op. cit.*, p.4.

82 Re examples of worker acceptance of incentives see, Quinlan (1982), *op. cit.*, pp.557-8 & 657-8; "Biennial Federal Conference - South Austrn. Branch Report", *SMW*, May 1954, p.8; interview Frank Bollins, *op. cit.*

meetings over anomalies in bonus payments and alleged "tight" rates. SMWU officials also kept a close eye on members weekly earnings and ensured that award provisions were honoured. In many cases disputes arose over employer attempts to absorb award wage increases within bonus payments. For example, at G.E. Cranes, SMWU officials organised a strike of union members following management's practice of ignoring basic wage and margins increases in calculating bonus earnings. Similarly, at Wilkin Servis and Gadsden Hughes, SMWU officials disputed managements' calculation of bonus on outdated award wage bases.⁸³

In the better organised factories, the SMWU succeeded in regulating incentive schemes. At AEI Engineering, following a strike over bonus anomalies, a set procedure was agreed to by management, which included a number of safeguards against arbitrary rate-setting. Principal among these was management acceptance of union involvement in disputes over rates, and the availability of all time studies for perusal by union delegates.⁸⁴

Another union that sought to involve itself in the operation of incentives was the ETU. Once again, union policy was shaped by the widespread acceptance of incentives by workers. Like many unions, the ETU was initially opposed to incentives. In 1949, the Union rules argued for the abolition and prevention of piecework and bonus systems, and stated that members breaching these provisions could be fined. However, following a survey of firms covered by the union it was found that in every factory employing process workers, some system of incentives existed.

In 1953, the union altered its provisions to argue for the restriction and control of incentives in industry. The change in policy to one of regulation through involvement, was emphasised in a provision that members only work under union approved incentive schemes. This meant union officials examined the details of proposed incentive plans, and that members then voted either for acceptance or rejection of the scheme, following explanation of the advantages and disadvantages of incentive working. In order to improve union understanding of incentives, a number of union officials attended ICIANZ's Work Study Appreciation Course. The Union also adopted minimum standards for incentive schemes based on ILO recommendations. These included worker confidence in the fairness of performance rating, proper maintenance of the scheme, that normal performance level should be based on an average worker working at average speed, that the worker should be paid all the direct savings over normal performance (rejection of regressive bonus schemes), that payment for standard performance be a minimum of a third extra of the award wage, and that the incentive not create intergroup inequities.⁸⁵

A further development of union regulation was the creation of Union Work Study Officers in some industries. This evolved in part from the consultant's practice of establishing joint work

83 Interview Frank Bollins, *op. cit.*; *SMW*, April 1970, p.6.

84 "Villawood Works - Union/Management Dispute, May '66", "AEI Mass Meeting Decisions, 9/12/65", "AEI Appliances Ltd., 16/12/1965", ANU Archives E245/42; *SMW*, Oct. 1966, p.5; Tsokhas, *op. cit.*, p.30.

85 McLeish (1961), *op. cit.*, pp.12-3; McLeish (1965), *op. cit.*, pp.14-6; interview David McLeish, *op. cit.*

study teams, and also formed part of the ILO safeguards for incentive schemes later adopted by the ACTU.⁸⁶

The best example of union officials trained in work measurement techniques occurred in the paper industry at APM. Despite initial opposition to the introduction of incentives, the acceptance of bonus payments by production workers eventually forced the Pulp & Paper Workers' Federation (PPWF) to accept the scheme. As part of the safeguards demanded by the Federation, a number of PPWF members were trained by PA consultants and designated Union Work Study Officers. Their job consisted of checking time standards and bonus calculations, as well as pursuing worker complaints regarding the administration of the scheme. A Union Work Study Superintendent was also established, who acted as union spokesman on bonus issues, and researched developments in work study practice.⁸⁷

However, union regulation faced practical limitations. While consultants often included union officials on work study teams, this did not ensure the protection of worker interests, given the reliance on the consultants for information. Further, many unionists alleged that once appointed to such "soft jobs", Union Study men simply became part of the management organisation. Clearly this varied depending on the character of the individual concerned. For example, one Union Study Officer at APM was widely accepted by workers through his attempts to safeguard their interests. In contrast, other union delegates trained in these techniques were regarded by workers as tougher rate-setters than their management counterparts, and in some cases as management "dupes".⁸⁸

During the post-War period, union response to incentives was also strongly influenced by the broader conflict within the labour movement between Communists and Industrial Groups. Generally, left-wing unions opposed incentives as a form of capitalist exploitation. In contrast, right-wing union officials argued that not only were incentives popular with workers, but that by increasing productivity they aided employment growth in industry. Indeed far from resisting these techniques, some union officials actively encouraged the application of more modern "scientific" incentive systems over traditional ad hoc schemes. For example, following a tour of American industry in 1950, the General Secretary of the Australian Workers' Union (AWU), argued vigorously for the broader introduction of incentives and work study, in order to make industry more efficient. Similarly, Textile Workers' Union officials actively co-operated with consultants in the introduction of incentives, and even advocated their use amongst other textile employers. Other unions that favoured the use of incentives included the Brushmakers' Union, the Federated Tobacco and Cigarette Workers' Union, the Rubber and

86 Interviews Alf Paton, former Director PA Consultants, 27/7/1988, & Arthur Bocking, *op. cit.*; ILO, *op. cit.*, pp.161-2.

87 Hotchkiss, I. (1971) "The Industrial Relations System of the Australian Paper Manufacturing Industry, with Special Reference to the APM Botany Mill", unpublished Honours thesis, Department of Industrial Relations, University of New South Wales, pp.53-4; "Report from PPWF Work Study Officer to ACTU" 17/9/1957, MWU Records.

88 Evans, W. (1957) "Labour's Problems and Responsibilities" in Oxnam, *op. cit.*, pp.72-3; Hotchkiss, *op. cit.*, p.54; interviews Bill Lambert & Jack Bird, *op. cit.*

Allied Workers' Union, the Artificial Fertilisers and Chemical Workers Union, and the Shop Assistants' Union.⁸⁹

The acceptance of scientific management by moderate unions commonly undermined militant union resistance against these techniques. For example, the Australasian Society of Engineers (ASE) actively accepted incentives, making it the preferred form of worker representation amongst metal industry employers. At Pope Products in Adelaide, the ASE negotiated an agreement with the management that included acceptance of the Company's incentive scheme, in return for exclusive coverage of the plant. Similarly, at Email's Orange factory, ASE officials were instrumental in gaining worker acceptance of the Company's proposed bonus scheme.⁹⁰

Differences in policy towards incentives also led to disputes between moderate and militant unions. One of the earliest examples of such inter-union conflict occurred at AWA's Sydney factory during the late 1940s, between the AEU and ETU. The acceptance of time study based incentives by ETU members resulted in dramatic reductions in wage differentials, with some female process workers taking home more weekly pay than maintenance tradesmen. The AEU members demanded the rejection of incentive payments throughout the plant, and banned maintenance work on machines and tools used on bonus paid jobs. Such actions sparked calls for retaliation from ETU members who suffered reductions in bonus earnings, and led to bitter recriminations between the two groups.⁹¹

Collective union policy towards incentives also underwent significant change during this period. Since its inception, the ACTU had adopted a policy of opposition to incentives. However, the increasing use of incentives in industry, and government lobbying led to a

reconsideration of this policy during the late 1940s and early 1950s. The first indications of a change in policy occurred during 1949, when the ACTU executive conducted a brief survey of the extent and nature of wage incentive schemes amongst member unions. At the 1951 Congress, members narrowly accepted an Executive recommendation that a more detailed and extensive investigation of incentive schemes be undertaken.⁹²

89 Re AWU policy see *Sydney Morning Herald* (hereafter *SMH*), 5/12/1950, p.2 & 7/12/1950, p.2; re other moderate union policies see letter from the Sect. of the Brushmakers' Union to the ACTU, 15/6/1949, ANU Archives N21/444; "ACTU - Summary of Replies Received from Affiliated Unions re Incentive Payments", 14/9/1953, p.7, ANU Archives N21/750; letter from Gen Sect. Federated Tobacco and Cigarette Workers' Union to the ACTU, 11/9/1953, ANU Archives N21/751; letter from Gen. Sect. Federated Rubber and Allied Workers' Union to ACTU, 10/9/1953, ANU Archives N21/751; "Work Study in ICIANZ", *op. cit.*, p.3; "Wage Incentive Survey - Bonds Industries Ltd., Colgate Palmolive Pty. Ltd., Lever Bros. Pty. Ltd, Goodyear Tyre & Rubber Co., Jantzen Ltd., Johnson & Johnson Pty. Ltd., Stirling Henry Ltd., W.D. & H.O. Wills", AA Series SP 666, item 54/695; interview Keith Fifer, *op. cit.*

90 *AEU/MJ*, July 1949, p.25, May 1950, p.29, June 1950, p.38, Sept. 1958, p.26; letter from ASE Western District Sect. to Industrial Officer Emmco, 23/9/1953, Personnel Dept. Records Email (Orange); interviews Frank Bollins & David McLeish, *op. cit.*

91 Interview David McLeish, *op. cit.*; AA Series SP 401, item 247/3/101; *AEU/MJ*, Sept. 1947, p.13, May 1948, p.22, Oct. 1948, p.19, April 1949, p.25; SMW, Dec. 1947, p.10, April 1949, p.3; letter from the NSW Labor Council to the ACTU 1/10/1948, ANU Archives N21/445.

92 Hagan, J. (1981) *The History of the ACTU*, Sydney, Longman Cheshire, pp.192-3, 195 & 247; Evans, W. (1957) "Union Attitude and Policy", in Oxnam, *op. cit.*, pp.32-4; "ACTU - Interim Report on Incentive Payments Operating in Australian Industry", ANU Archives, N21/444; replies from various unions to ACTU

The 1953 Congress set the scene for a fundamental change in ACTU policy towards incentives. In accordance with the 1951 decision, the Executive presented a report on the principles and operation of incentives in Australian and overseas industry. The research for the report had consisted of a survey questionnaire of member unions, as well as enquiries of overseas union officials and ILO publications. The resulting recommendation of the Executive was a compromise. On the one hand, the Executive recognised the dangers of incentives and rejected the employers' claim that incentives were a prerequisite to increased production and improved standards of living. However, it argued that it was unrealistic not to recognise the fact that incentives were an accepted feature in many industries. As a result, the Executive put forward a list of minimum requirements based on ILO principles to safeguard workers' interests under incentive schemes. Militant unions vigorously opposed any change in policy, arguing it was a betrayal of the labour movement and defeatist. Despite such opposition, a majority of the Congress accepted the Executive's statement, and when asked what this meant in practice, the President stated that while the ACTU continued to be opposed to incentives, the acceptance or rejection of any particular scheme was to be left up to the individual union concerned.⁹³

The 1953 decision represented a fundamental shift in collective union policy towards wage incentives. The decision was interpreted by the media and many employers as giving the "green light" to the wider use of incentives in industry. For example, the ACTU decision marked the demise of the production union's opposition to the introduction of time study based incentives at the various APM mills. Similarly at Email's Orange factory, management seized upon the change in ACTU policy to introduce its incentive scheme. In spite of the strong and often vitriolic opposition of the metal unions to the change in ACTU policy, there was only one item on the 1955 Congress agenda dealing with incentives, and there was no request for it to be considered. At future Congresses there was little mention of incentives.⁹⁴

THE DEMISE OF WAGE INCENTIVES

By the later half of the 1960s, firms who had been leaders in the introduction of incentives were having increasing trouble in administering and maintaining their schemes. One of the first problems management faced in the administration of incentives was their sheer complexity. In an effort to stave off worker discontent over declining wage differentials, many firms operated a variety of incentive schemes, covering not only direct production workers but also indirect and supervisory employees. This meant that in many large firms a plethora of

re incentives (1948/9), ANU Archives N21/444 & N21/445; "ACTU Congress, 1949" & "ACTU Congress, 1951", ANU Archives S784; "ACTU Plans Study of Incentives", *SMH*, 7/9/1951, p.3.

93 Hagan, *op. cit.*, pp.247-8; Evans, *op. cit.*, pp.34-7; "ACTU - Summary of Replies Received from Affiliated Unions...", *op. cit.*; replies from various unions to ACTU re incentives (1953), ANU Archives N21/750 & N21/751; "Incentive Schemes, Paper Presented by Mr. Sol. Barkin, Research Director of the Textile Workers' Union of America", "Incentive Systems" & "Recommendation of Executive on Incentives", ANU Archives N21/750; "ACTU Congress, 1953", ANU Archives S784.

94 Evans, *op. cit.*, pp.34 & 37; Hagan, *op. cit.*, p.248; "ACTU Gives 'Green Light' to Incentives in Industry", *The Sun*, 7/10/1953, p.2; "Way Cleared for Incentives", *The Daily Telegraph*, 25/9/1953, p.2; re details of APM dispute see ACTU minutes and various papers ANU Archives, N21/750 & N21/262, also Hotchkiss, *op. cit.*, pp.52-5; "Application of Time Study and Incentive Payment", Personnel Dept. Records, Email (Orange); "ACTU Congress, 1957 & 1959", ANU Archives, S784.

different incentive schemes operated, covering many hundreds of workers, some based on scientific work measurement, others on merit, attendance, or total factory production. Varied product ranges further exacerbated the complexity of incentives. Not only did the variety of schemes make administration difficult, it was also increasingly costly, requiring large clerical staffs to calculate bonus earnings.⁹⁵

Beyond administrative difficulties, incentive schemes required continual maintenance if standards were not to become too "loose" or "tight". Anomalous standards could result from errors of calculation in the initial study, improvement in worker performance due to increased experience (the so-called "learning curve" effect), or through changes in production methods. This latter factor became increasingly important during the latter half of the 1960s, as employers in a number of industries invested in increased mechanisation of production processes.⁹⁶ As a former methods engineer in a textile firm recollected:

"We had a retrograde step where changes were being made in the mill but we became in effect clerks, trying to update standards, massive volumes where every movement had been charted originally. There was no way of maintaining it, and we succumbed to adding a line at the bottom of a beautifully constructed standard saying, "Due to a change in the design of the machine add 10%", and it just prostituted the whole thing, it no longer became a viable standard. By the time you'd made a dozen alterations like that to it, you never quite remembered how the first one was written up. And so people were taking guesses as to how the thing should be put together, and frequently incorrect ones. What happened then was a department didn't make a standard that was set, managers would have trouble running departments because the girls had jacked up."⁹⁷

While tight rates led to industrial conflict, loose standards resulted in ballooning bonus payments. One response was to place ceilings on maximum earnings. For example by the late 1960s, textile firms such as Bradford Cotton Mills had reduced the ceiling for maximum bonus from 150 per cent down to 120 per cent. Similarly at APM, management reduced incentive wages for standard performance, in an effort to contain expanding bonus payments. While this limited excessive bonus, it also reduced worker incentive to produce beyond standard.⁹⁸

By the mid-1960s, workers in many firms were dissatisfied with their bonus earnings and industrial disputation over incentive schemes had become widespread. One survey found as many as 28 per cent of firms using incentives reported labour relations problems in their

95 ILO, *op. cit.*, pp.41-45; DLNS (1959), *op. cit.*, pp.12-13 & 63-65; Kangan (1951) *op. cit.*, pp.5-6; "APM Fairfield Mill, Engineering Division - Outline of Bonus Plan", April 1955, PA Consulting Group records; "Bonus Review", Personnel Dept. Records Tubemakers; "Bonus Plan for Staff Not Directly Engaged in Production", Personnel Dept. Records Email (Orange); interviews Bob Stevenson & Bob Rowland, *op. cit.*

96 Interviews Colin Bull, former Works Manager and Managing Director Johnson & Johnson Ltd., 9/10/1987, Bob Stevenson, Hal Porter & Alf Paton, *op. cit.*; the problems of maintaining incentive schemes have been also noted by overseas writers, see Brown, *op. cit.*, pp.11-23.

97 Interview Allan Villiers, former Methods Engineer Bradford Cotton Mills, 30/11/1987.

98 Interview Allan Villiers, *op. cit.*; 24 IIB 568-9.

use.⁹⁹ Growing shopfloor disaffection with incentives reflected not only inconsistencies in bonus earnings but also broader social changes. By the late 1960s, wage incentives had begun to lose their appeal for many workers. As one methods engineer recalled of process workers:

"Money was no longer the carrot they were after. Operators got sick of it, they had gotten older...these women had got their houses furnished, they'd got their kids through school, there was no longer the incentive they required. They were content to get a day rate out of it...they liked the idea of continuing to work, but not at the same sorts of pressures."¹⁰⁰

For unions which had traditionally opposed such schemes, the shift in worker sentiment resulted in campaigns for the replacement of production based incentive schemes with flat over-award payments. For example, at Email's Orange factory, variations in bonus earnings led to increasing industrial conflict and high labour turnover. Such shopfloor discontent eventually forced management to replace production based incentives with a factory wide attendance bonus. Similarly, at Rheem (Aust.) Ltd., the production based incentive was replaced with a set over-award merit allowance.¹⁰¹

In many cases, management complied with union campaigns to remove incentive schemes, given increasing administrative difficulties. Indeed, where employers were anxious to end such schemes, they sometimes sought the co-operation of union officials. For example, at James Hardie's Melbourne factory, management enlisted the help of Miscellaneous Workers' Union officials in convincing bonus workers of the need to end the incentive scheme in favour of a flat over-award allowance.¹⁰²

Such "buy-outs" of incentive schemes became commonplace as firms relied increasingly on closer supervision and mechanisation to ensure adequate output. In some firms, greater emphasis was placed on group incentives for process workers. In only a few industries such as clothing, where mechanisation of assembly operations was limited, did individual incentives based on scientific work measurement continue to be used.¹⁰³

CONCLUSION

Contrary to popular belief, payment by results and other payment systems have enjoyed a long history of use in Australian industry. During the post Second World War period, these

99 Gunzburg, (1970) "Wage Incentives - 3", *op. cit.*, p.89.

100 Interview Allan Villiers, *op. cit.*

101 Interviews Bill Denman, former AEU shop steward Email (Orange) Ltd., 8/2/1988 & Bob Stevenson, *op. cit.*; "Revision of the Orange Plant Direct Labour Incentive Scheme, 9/7/1965" & various memoranda on bonus system, Personnel Dept. Records, Email Ltd. (Orange); "Production Bonus Abolished, Important Advance at Rheems", *SMW*, Oct. 1966, p.5 & "Rheem Aust. Pty. Ltd. - Rheem Production Allowance, 24/1/1967", ANU Archives E232/53;

102 Interview Ray Gietzelt, *op. cit.*

103 Interviews Colin Bull, Ian Fraser & Bob Stevenson, *op. cit.*; re the use of incentives in the clothing industry during the late 1960s and 1970s see 133 CAR 743 & Ellem, *op. cit.*, p.283.

techniques under the collective title of "incentives", were extensively applied within a wide variety of industries. Further, existing quantitative data suggests that the extent of use of these practices in Australian industry was on a par with overseas economies, such as Britain and the United States.

The significance of payment systems highlights the extent of workplace activity within Australian industrial relations. While conventional literature has stressed the dominance of the arbitration system in shaping workplace behaviour, this paper questions such an assumption. While arbitration tribunals placed some restrictions upon management's use of these techniques, in general the tribunals were loathe to interfere in such areas of management prerogative. Indeed, both arbitration tribunals and the Commonwealth Government actively supported the broader use of alternative payment systems during this period.

Nor was labour response necessarily hostile to managements' use of new payment schemes. Workers generally accepted bonus payments, despite the adverse affects of such schemes. Many unions, while officially opposed to incentives, either chose to ignore their members acceptance of bonus payments, or in some cases adopted a more pragmatic approach. Many moderate unions accepted incentives, arguing they not only benefited their members earnings but aided productivity growth.

While growing administrative problems led to the eventual demise of many incentive schemes in manufacturing industry during the late 1960s and early 1970s, recent proposals to introduce performance related payment systems echo these earlier examples.¹⁰⁴ Contemporary advocates might do well to observe the lessons of history before introducing such schemes.

REFERENCES

Anderson,G. (1929) *Fixation of Wages in Australia*, Melbourne, Macmillan.

Anderson,I. (1930) "The Control of Labour Expense Under the Bedaux Principle", *Rydge's*, Aug., pp.693-5

Arrowsmith,J. & Zangalis,G. (1965) *The Golden Holden, The Story of General Motors in Australia*, Melbourne, International Bookshop.

Australian Industrial Relations Commission, *February 1989 Review, Reasons For Decision*.

Behrend,H. (1963) "An Assessment of the Current Status of Incentive Schemes", *JIR*, Oct., pp.96-109.

104 For examples of recent performance pay proposals see, Australian Industrial Relations Commission, *February 1989 Review, Reasons For Decision*, pp.8-9; Business Council of Australia, *Enterprise-Based Bargaining Units, A Better Way of Working*, Vol.1, p.6; Drago,R., Kriegler,R., Tulsi,N. & Wooden,M. (1988) *The BCA/NILS Industrial Relations Study: An Overview of the Employee Survey*, National Institute of Labour Studies, Working Paper Series No.100, p.18; Polglaze,K. (1990) "PSU Wants Agreement on Performance Pay Schemes", *Canberra Times*, Feb.14., p.16; Knuckey,D. (1990) "Benefits Make Pay Pie Sweeter", *The Australian*, April 21-2, p.31.

- Boehm,E. (1971) *Twentieth Century Economic Development in Australia*, Melbourne, Longman.
- Bongarzoni,C. & Compton,R. (1986) "The Impact of the Macro Industrial Relations System on Relations at the Enterprise Level", in Blandy,R. & Niland,J. (eds.) *Alternatives to Arbitration*, Sydney, Allen & Unwin.
- Brown,W. (1973) *Piecework Bargaining*, London, Heinemann.
- Buckley,K. (1970) *The Amalgamated Engineers in Australia, 1852-1920*, Canberra, ANU.
- Business Council of Australia, *Enterprise-Based Bargaining Units, A Better Way of Working*, Vol.1.,Ch.1.
- Byrt,W. (1948) "Some Facts on Labour Turnover", *Bulletin of Industrial Psychology and Personnel Practice* (hereafter *BIPPP*), vol.4, no.4.
- Callus,R. (1979) "Employer Policies for the Management of a Multi-Ethnic Workforce: A Critical Examination", *JIR*, Dec., pp.418-434.
- Cruise,H. (1957) "Some Restrictive Practices in Australia: Their Extent, Effect, and Origin", in Wilkes,J. (ed.) *Productivity and Progress*, Sydney, Angus & Robertson, pp.236-306.
- Danby,L. (1950) "Problems of the Time Study Man", *M&M*, July, pp.22-27.
- Daniel,W. & Millward,N. (1985) *Workplace Industrial Relations in Britain*, Gower.
- Deacon,J. (1966) "Case Studies on Wage Incentives: No.2", *PPB*, vol.22, no.3.
- DLNS (1949), *A Review of Wage Incentive Practice*, Commonwealth of Australia.
- DLNS (1959), *Wage Incentives in Australian Industry, Principles and Cases*, Commonwealth of Australia.
- Drago,R., Kriegler,R., Tulsi,N. & Wooden,M. (1988) *The BCA/NILS Industrial Relations Study: An Overview of the Employee Survey*, National Institute of Labour Studies, Working Paper Series No.100.
- Duncan,W. (1949) "Incentives in Industry", *Current Affairs Bulletin*, vol.3, no.13.
- Ellem,B.(1989) *In Women's Hands? A History of Clothing Trades Unionism in Australia*, New South Wales University Press.
- Evans,W. (1957) "Labour's Problems and Responsibilities" in Oxnam,D. (ed.) *Payment By Results, Addresses to the Third Labour-Management Conference*, Uni. of Western Australia Press, pp.60-78.
- Evans,W. (1957) "Union Attitude and Policy", in Oxnam, *op. cit.*, pp.28-54.
- Ferguson,E. (1956) "Problems of Operating Wage Incentive Plans", *PPB*, vol.12, no.3.

- Fitzpatrick,F. (1947) "Formulating a Company Personnel Policy", *BIPPP*, vol.3, no.4.
- Forster,C. (1964) *Industrial Development in Australia, 1920-1930*, Canberra, ANU.
- Frances,R. (1986) "No More Amazons": Gender and the Work Process in the Victorian Clothing Trades, 1890-1939", *Labour History*, no.50, pp.95-112.
- Frances,R. (1988) "The Clothing and Boot Industries, 1880-1939", in Willis,E. (ed.) *Technology and the Labour Process: Australian Case Studies*, Sydney, Allen & Unwin, pp.96-112.
- General Motors-Holden's Ltd. (1950) *Service Loading Payments Plan for All Wage Employees*, Melbourne.
- Grant,A. (1983) *Against the Clock, Work Study and Incentive Schemes*, London, Pluto Press.
- Gully,R. (1957) "The Nature and Extent of Payment By Results", in Oxnam, *op. cit.*, pp.1-13.
- Gunzburg,D. (1969) "Wage Incentives in Australia 1 - Extent", *PPB*, vol.25, no.4, pp.274-287.
- Gunzburg,D. (1970a) "Wage Incentives in Australia 2 - Operation", *PPB*, vol.26, no.1, pp.10-24.
- Gunzburg,D. (1970b) "Wage Incentives in Australia 3 - Effects", *PPB*, vol.26, no.2, pp.83-92.
- Hagan,J. & Fisher,C. (1973) "Piece-Work and Some of its Consequences in the Printing and Coal Mining Industries in Australia, 1850-1930", *Labour History*, no.25, pp.19-39.
- Hagan,J. (1981) *The History of the ACTU*, Sydney, Longman Cheshire.
- Horne,R. (1951) "Wage Incentives in Operation - Case Study No.5", *BIPPP*, vol.7, no.1.
- Hotchkiss,I. (1971) "The Industrial Relations System of the Australian Paper Manufacturing Industry, with Special Reference to the APM Botany Mill", unpublished Honours thesis, Department of Industrial Relations, University of New South Wales.
- Hurley,W. & Wickham,O. (1951) "A Review of Australian Profit-Sharing Practice", *BIPPP*, vol.7, no.3.
- IIM (1949) *Wage Incentives in Operation in Industry in Victoria*, Research Report No.3, Melbourne.
- International Labour Office (1951) *Payment By Results*, Geneva, ILO.
- Jeffries,R. (1937) "Wage Incentives Through Scientific Time Study", *Rydge's*, July, pp.538-9.
- Kangan,M. & Byrt,W. (1948) "Profit Sharing in Australian Industry", *BIPPP*, vol.4, no.2.
- Kangan,M. (1951) "Australian Experience with Wage Incentives", *BIPPP*, vol.7, no.2.
- Knuckey,D. (1990) "Benefits Make Pay Pie Sweeter", *The Australian*, April 21-2, p.31.

- Littler,C., Quinlan,M. & Kitay,J. (1989) "Australian Workplace Industrial Relations: Towards a Conceptual Framework", *JIR*, Dec., pp.500-525.
- Lupton,T. (1972) *Payment Systems, Selected Readings*, Harmondsworth, Penguin
- McLeish,D. (1961) "Incentives in Industry", unpublished address to the Australian Institute of Management
- McLeish,D. (1965), "Union View of Work Study", Paper Presented to the Institute of Industrial Engineers.
- Mills, C. (1969) *Industrial Laws, New South Wales*, 3rd ed., Sydney, Butterworths.
- Millward,N. & Stevens,M. (1986) *British Workplace Industrial Relations 1980-1984*, Gower.
- Patmore,G. (1988) "Systematic Management and Bureaucracy: the NSW Railways Prior to 1932", *Labour and Industry*, vol.1 no.2, pp.306-321.
- Perry,P. & York,L. (1957) *A Study of Management Consultants in Australia*, Sydney, John Lee & Sons.
- Polglaze,K. (1990) "PSU Wants Agreement on Performance Pay Schemes", *Canberra Times*, Feb.14., p.16.
- Price,W. (1939) "Selecting and Paying Employees at STC", *Rydge's*, Feb., pp.110-112.
- Quinlan,M. (1982), "Immigrant Workers, Trade Union Organisation and Industrial Strategy", unpublished PhD thesis, Department of Industrial Relations, University of Sydney.
- Rose,M. (1978) *Industrial Behaviour, Theoretical Development Since Taylor*, Harmondsworth, Penguin.
- Russell,P. (1985) "The Response of Management Policy to the Industrial Conditions of the Later World War I and Reconstruction Era, 1917-1921", unpublished Honours thesis, Dept. of Industrial Relations, Uni. of Sydney.
- Scott,W. (1955) "Financial Incentives - Why and How", *PPB*, vol.11, no.2.
- Sheridan, T. (1975) *Mindful Militants: the Amalgamated Engineering Union in Australia 1920-1970*, Melbourne, Cambridge Uni. Press.
- Sheridan,T. (1979) "Democracy Among the Aristocrats: Participation of Members in the Affairs of the AEU", *JIR*, June, pp.161-183.
- Sheridan,T. (1989) *Division of Labour, Industrial Relations in the Chifley Years, 1945-49*, Oxford Uni. Press.
- Shields,J. (1984) "Capital, Craft Unions and Metal Trades Apprenticeship in NSW Prior to World War II", in Cottle,D. (ed.) *Capital Essays*, General Studies Dept., Uni. of New South Wales, pp.6-18.

Shimmin,S. (1959) *Payment By Results, A Psychological Investigation*, London, Staples Press.

Smith,R. (1966) "Case Studies on Wage Incentives: No.1", *PPB*, vol.22, no.1.

Taylor,F. (1967) *The Principles of Scientific Management*, New York, Norton.

Tsokhas,K. (1988) *Work Practices and Sheet Metal Workers, 1929-1970*, Working paper No.116, Dept. of Economic History, ANU.

Walker,K. (1949) "Wage-Incentive Plans: A Review of Award Provisions", *BIPPP*, vol.5 no.2.

Wills,D. (1948) "Principles of Merit Rating", *M&M*, May, pp.370-1.

Wright,C. (1988) "The Formative Years of Management Control at the Newcastle Steelworks, 1913-1924", *Labour History*, no.55, pp.55-70.

Wright,C. (1989) "The Management Consultant and the Introduction of Scientific Management in Australian Industry", in Bray,M. & Kelly,D. (eds.) *Issues and Trends in Australasian Industrial Relations. Proceedings of the 4th Biennial AIRAANZ Conference*, Association of Industrial Relations Academics of Australia and New Zealand, Sydney, pp.227-255.

_____(1944) "Rewards for Individual Initiative", *M&M*, Nov., p.9.

_____(1946) "Managers Discuss Wage Incentives at All-Day Conference", *M&M*, Dec., pp.225-7.

_____(1947) "Labor Shortage and Wage Incentive Plans", *M&M*, Nov., pp.176-7.

_____(1949) "Incentive Payments...Statement by Prime Minister", *M&M*, March, p.301.

_____(1949) "Labour Turnover in Australian Industry", *BIPPP*, vol.5, no.3.

_____(1949) "Many Benefits from Profit Sharing at Jacques", *M&M*, Aug., pp.39-40.

_____(1950) "Incentive Payments in Australian Industry", *BIPPP*, vol.6, no.1.

NEWSPAPERS AND PERIODICALS

Amalgamated Engineering Union Monthly Journal

Australasian Engineer

Australasian Manufacturer

Australian Industrial Law Reports.

Commonwealth Arbitration Reports

Industrial Information Bulletin.

J&J Staff News

NSW Industrial Reports

The Daily Telegraph

The Sheet Metal Worker

The Sun

The Sydney Morning Herald

INTERVIEWS

Stan Benn, former Metters worker, 13/9/1988.

Jack Bird, former AEU shop steward at APM, 15/11/1988.

Arthur Bocking former PA Consultant, 20/3/1988.

Frank Bollins, former SMWU official, 14/4/1988.

Kath Buckley, former David Jones worker, 22/9/1988.

Colin Bull, former Works Manager and Managing Director Johnson & Johnson Ltd., 9/10/1987.

Joe Campbell, former Metters worker, 13/9/1988.

Laurie Carmichael, former AEU official, 12/5/1988.

Bill Denman, former AEU shop steward Email (Orange) Ltd., 8/2/1988.

Keith Fifer, former David Jones time study officer and W.D.Scott & Co. consultant, 19/2/1988.

Ian Fraser, former Works Manager Fibre Containers Ltd., 30/3/1988.

Ray Gietzelt, former Miscellaneous Workers' Union official, 29/2/1988.

Ron Hinton, former Production Engineer James Hardie Ltd., 28/10/1987.

Bill Lambert former AEU shop steward at APM, 29/11/1988.

David McLeish, former ETU official, 23/2/1988.

Cliff Morrow, former W.D.Scott & Co. consultant, 10/2/1988.

Alf Paton, former Director PA Consultants, 27/7/1988.

Hal Porter, former W.D.Scott & Co. Director, 24/11/1987.

Bob Rowland, former Head Methods Engineer, Bradford Cotton Mills, 16/2/1988.

Bob Stevenson, former Production Manager, Email Ltd., 16/12/1987.

Allan Villiers, former Methods Engineer Bradford Cotton Mills, 30/11/1987.

Col Wass, former Head Methods Engineer Stewarts & Lloyds, 15/12/1987.

Daphne Webster, former Personnel Manager Bradford Cotton Mills, 18/5/1988.

OTHER SOURCES

ANU Archives of Business and Labour:

ACTU Collection; N21/750, N21/751, N21/262, N21/444, N21/445, S784.

SMWU Collection; E232/53, E245/42.

Australian Archives:

Records of the Department of Labour & National Service, Series SP 401, SP666, SP113/1, SP 146.

Bradmill Ltd., Personnel Department Records (Yarraville).

Comsteel Ltd., Personnel Department Records (Newcastle).

Email Ltd., Personnel Department Records (Orange).

Melbourne University Archives:

Clothing & Allied Trades Union Records.

Vehicle Builders Employees Federation Records.

Miscellaneous Workers' Union Records:

ACTU Minutes.

PA Consulting Group Records.

Tubemakers Ltd., Personnel Department Records (Newcastle).