Industrial relations in the Australian engineering industry, 1920-1945: the Amalgamated Engineering Union and craft unionism

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NOTE

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In the 1920s, Australia took a definite step towards becoming an industrialised nation, the manufacturing sector of the economy, including the metal industries, making a notable contribution. This process of industrialisation, however, proceeded on fragile basis. It relied on the inflow of foreign capital, and the acquisition of foreign currency depended largely on the export of primary products like wool and wheat. Thus, the Australian economy in the 1920s was structurally vulnerable to the fluctuations of the world economy.

In the late 1920s, the export prices were falling and overseas reserves were being depleted. Although manufacturing industries in Australia developed to a certain extent during the decade, they still lacked in competitiveness and import substitution was not accomplished. The Australian economy had already been in the phase of recession by around 1928, long before the Great world Depression, triggered by the collapse of the New York stock market in October 1929, swallowed Australia.

The international economic chaos paralysed the frail Australian economy. The prices of wool and wheat dropped more than half by 1931 from the pre-Depression peak and the capital inflow from
overseas halted.\textsuperscript{1} Thus, the two main pillars which had sustained the Australian economy during the 1920s crumbled. The GDP in current prices fell by about 30 per cent between the pre-Depression peak of 1928 and the trough of 1932.\textsuperscript{2} Industries, especially the manufacturing sector, sacked staff and the unemployment rate reached, according to a recent estimate, as high as 35.0 per cent in 1931-32.\textsuperscript{3}

Under these circumstances, the Scullin Labor Government, which could not help being influenced by the interests of financial capital both at home and in Britain, adopted basically deflationary policies, which were manifested in the so-called Premiers' Plan in 1931. The top priority being to reduce the public debt, the Government implemented measures like spending cuts, tax increases and wage cuts, together with the raising of tariffs and the devaluation of Australian currency.

The economic chaos created political turmoil, which culminated in the events of 1931. In NSW, Premier Lang opposed the deflationary policies of the Federal Labor Government and went his own way with his populist policies, thus virtually separating the NSW branch from the Federal ALP. Eventually, in the Federal election later that year, the Scullin Government was defeated by the United Australia Party led by Lyons. The new Government stuck to the deflationary principle of the Premiers' Plan.

In the process of the recovery from the Depression, the structure of the Australian economy was strengthened. By the late 1930s, the borrowing of foreign capital was minimised and imports were reduced significantly. The economy continued to grow after the

\textsuperscript{1} For the account of the Great Depression in Australia, see C. B. Schedvin, \textit{Australia and the Great Depression: A Study of Economic Development and Policy in the 1920s and 1930s}, (Sydney University Press, Sydney, 1970).


Depression and the development of the manufacturing sector was especially conspicuous. This sector of the economy made significant progress in terms of both production and productivity. In terms of employment, the manufacturing sector expanded considerably. By the end of the decade, more people were employed in secondary industries than in the primary sector. Thus, Australia was transformed during this period into a more mature and independent industrialised country.

While going through the Great Depression and the recovery process, the role of the Federal Arbitration Court as an economic institution clearly manifested itself. As mentioned, the original purpose of the Court was to maintain industrial peace. During the 1920s, economic considerations were given more and more importance in the making of judgements. However, it was in the 1930s that the Court publicly declared that the industry's capacity to pay was the top priority in determining working conditions.

In 1931, the Court made the unprecedented decision, in line with a series of deflationary policies taken by the Government, to reduce the Basic Wage by 10 per cent. In the process of recovery, the Court played the role of checking wage increases. Despite the repeated litigation by the ACTU, the Court continued to refuse any restoration of the lost 10 per cent, till in 1934, when it was partially restored. It was only in 1937 that the Basic Wage fully recovered to the pre-Depression level.

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4 The traditional view, exemplified by Schedvin, that the manufacturing sector was the driving force of the recovery is qualified by recent studies. See, for instance, M. Thomas, 'Manufacturing and Economic Recovery in Australia, 1932-1937', in R. G. Gregory and N. G. Butlin (eds), op. cit. Nevertheless, it is a fact, as Thomas' study itself confirms, that there was a marked increase in output, productivity and employment in the manufacturing sector and the importation of manufactured goods dropped drastically during the Depression and never recovered to the pre-Depression level.

5 30 CAR 2. As to the actual effects of this Basic Wage reduction, see C. Forster, Wages and Wage Policy: Australia in the Depression 1929-34, (Working Papers in Economic History, no. 117, Australian National University, Canberra, 1988).

6 33 CAR 144.

7 37 CAR 583.
Thus strengthening its economic function, the Federal Arbitration Court further enhanced its authority by finally acquiring the legal power to make a common rule in 1935. Now Federal awards applied to all employees be they union members or non-unionists.

Based on this economic, political and social context, the remainder of this chapter attempts to analyse Federal engineering awards of the 1930s. Beeby's well-known Metal Trades Award was delivered in 1930. By that time, the impact of the depression had been deeply felt, although it had not reached its trough. It should be borne in mind that what Beeby did in this Award was basically a consummation of his industrial reforms which he began during the 1920s, rather than a direct response to the Depression. As shown in Chapter One, the gist of Beeby's reform plan was piecework and reclassification, in return for a shorter working week. Now that a 44-hour week had been introduced and the legal obstacles to piecework had been removed, the remainder of his plan, reclassification, was to be the focal point in this award case.

During the hearing, the employers, concerned about the deteriorating economy, demanded a radical restructuring of industrial relations. They presented their case that the current industrial framework set by Higgins in the first Federal Engineering Award was no longer appropriate for the development of the industry and a new framework should be established in order to reduce production costs and compete with importation. As the principle of the new industrial framework, the employers requested the following:

That where skill is entirely eliminated by the use of single purpose, automatic or semi-automatic machines, or by the subdivision of hand labour into specialized repetitive processes, employers should be free to engage unskilled, partially skilled, or junior labour at appropriate rates. That the present system under which men claim to be paid for what by training as craftsmen they are able to, instead of for the work they actually, do is economically unsound, and in view of methods

8 28 CAR 923 at pp. 929-930.
of production in other countries must be abandoned if we are to develop manufacturing industries.9

Here the employers raised a fundamental question concerning the principle of wage setting: Should margins be determined according to the workers' qualifications or their actual work, especially when they are engaged on mass production where only simple, repetitive work is required? Traditionally, tradesmen were paid not for the specific work they performed, but for their being tradesmen, because they were expected to perform a wide range of operations they had learned during their apprenticeship. While tradesmen were all-round workers because of the traditional craft-type skill they possessed, those engaged in mass production were only expected to repeat the same simple operation, which necessitated no lengthy training. Because of this difference, the employers argued, workers in the mass production process, whether they were skilled or not, should not be paid for what they were able to do but for what they actually did. By pressing this new principle of wage setting, the employers intended to substitute cheap labour for costly tradesmen in the mass production process.

From the Union's point of view, the proposed reclassification, as well as payment by results, was intolerable, because it was an overt encroachment into tradesmen's industrial ground. The Union made clear its case in the Court as follows:

That any serious changes in the classification of labour or any extension to skilled tradesmen of payment by results will, by increasing the total quantity of production with a lesser number of hands employed, reduce opportunities for employment for skilled workmen, and lower the status of a large proportion of skilled men to that of machine operatives and specialized process workers...That even if reclassification were granted, the machine operative compelled to take work on automatic processes should receive tradesmen's wages, in view of the greatly increased production which accompanies specialization of processes...That a country such as Australia, with its established idea of statutory maintenance of minimum standards for wage-earners, should not encourage the development of industries which can only thrive by the

9 Ibid., p. 930.
substitution of process workers for tradesmen and by the wider employment of junior and female labour. That no industry which diverts the youth of a community from skilled trades to dead-end occupations should be encouraged.  

The replacement of tradesmen by cheap machine operatives (process workers) meant the loss of tradesmen's control over the manufacturing process. In addition, the introduction of unapprenticed juniors would break the Union's control over labour supply through the apprenticeship system. Therefore, the employer's demand was regarded by the Union as a direct attack on the very basis of craft unionism.

As the premise of his judgement, Beeby emphasised the serious conditions of the present economy, especially, the severity of import pressure:

Some union advocates contended that the depression is one of the recurring cycles to which industry and commerce are accustomed. But is it?...I am forced to repeat, and act on my opinion, that in the metal trades group of industries recovery to the level of 1924-25, and further expansion, are only possible by reduction of costs of production...  

I am forced to the conclusion that important sections of the industry are depressed by circumstances outside those causing the general trade depression. Making and manufacture of iron and steel products, machinery, and electrical appliances are increasingly affected by importation of goods produced overseas by new methods of production which have greatly reduced costs.

By thus giving the economic consideration priority, Beeby virtually accepted the employers' case and insisted on the implementation of cost reduction.

At this stage, however, he did not think it necessary to make an across-the-board cut in wages:

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10 Ibid., p. 931.
11 Ibid., p. 1019.
12 Ibid., p. 935.
But I am not convinced that the situation is serious enough to make the reduction of prevailing minimum wages imperative. Reduction of costs of production including wage costs is vitally important, but all ways of reducing costs should be exhausted before wages are reduced...13

The 10 per cent cut of the Basic Wage was yet to be effected. Beeby, at this point, desired that the cost reduction would be carried out in the spirit of mutual understanding and co-operation between the employers and the employed:

Careful consideration of the figures [of economic indicators]...should convince the unions that the position is critical and that, if they do not co-operate in reducing costs, still further contractions of opportunities for employment, and wage cuts, are inevitable. No group of industries lends itself so much to mutual understanding and co-operation...The industries are essentially wage paying, i.e., the proportion of total results which goes to wage earners is much greater than in any other group of industries. There is no industrial field from which class conscious conflict could be more easily removed by effort of employers and employees to understand more thoroughly each the other's difficulties. Without some such understanding present difficulties will multiply and the decline of recent years will continue. 14

Based on the understandings presented above, Beeby then set out his own plans to reduce production costs and raise competitive power. First, he encouraged the further adoption of piecework. It should be noted that the method of payment by results was contrived in relation to mass production. Although it was in his last Award in 1927 that legal restrictions on piecework was lifted for the first time, Beeby insisted, it had always been the Court's intention to introduce piecework into repetition work. To confirm this point, Beeby cited the following remark by Higgins:

Repetition work continued day after day means greater speed, and greater than normal speed is an exceptional qualification and should bring higher remuneration. In making metal articles (as distinguished from repair work) the employers are in competition with other countries...So long as the rights of

13 Ibid.
14 Ibid.
the employees are duly safeguarded there is no reason why, for
the making as distinguished from the repairing of articles
which are required in great numbers, the employer should be
prevented from having piece-work rates. But the difficulty is in
safeguarding these rights.\(^5\)

Piecework entailed complex problems. Economically, it was
regarded as a more suitable method of payment to increase
productivity especially in relation to repetitive work. A negative
aspect of it was that it could be used as a method of exploitation,
because the employers tended to reduce piecework rates, as
productivity increased. Although this problem could be alleviated
by guaranteeing the minimum piecework rates to be set reasonably
above the Award rates, a more serious concern of the Union was
that this method of payment would undermine the very basis of
unionism, i.e. collective bargaining, by substituting for it individual
contracts with employers. Beeby was not ignorant of this concern:

It appeared to me, however, that fear of unemployment and
remembrance of their experiences in pre-arbitration days were
not the only objections to systems of payment by results.
Objection to individual, in place of collective, bargaining is at
the root of the uncompromising hostility of union executives.
Advocates contend that the right of individual workmen or
groups of individuals to bargain for wage payments without
union sanction is subversive of unionism and leads to the
"open shop" agreements which prevail so largely in the United
States of America.\(^6\)

However, Beeby dismissed the Union's concern, expressing his
strong belief in individualism:

While our system of regulation is a check on individualism, it
permits and encourages individualism within prescribed
limits...[W]hy should not the man above the average capacity
be free to make a bargain[?]...Nothing will stop individuals
from stepping out of ruts...With all modern restrictions on
individual action, individualism within its new boundaries is
still the driving force of civilization. Unions' desire to prevent
all systems of payment by results, as an aid to their retaining
control of members beyond the limit contemplated by

\(^5\) Ibid., p. 939.
\(^6\) Ibid., p. 952.
legislation, cannot influence a Court in making its awards. Economic pressure is convincing [the Court]...that there is something in employers' pleas for reduced production costs...I am convinced that, in their own interests, unions should withdraw their prohibitions...17

In the end, ineluctable economic necessity, combined with Beeby's strong belief in individualism, outweighed the Unions' arguments.

There is one important point about piecework which should not be overlooked. The purpose of the introduction of piecework was, according to Beeby, to extract the best of the workers' ability in a voluntary way. Therefore, where the speed of work was determined entirely by machines, the Judge did not intend to impose piecework.18 Extra bonuses were considered to be the reward for human efforts on the part of the workers, even if their work was of repetitive nature. As will be shown later, this recognition was part of the reason why Beeby lost interest in piecework in the mid 1930s. In any event, under the deteriorating economic circumstances in the early 1930s, shortage of orders prevented piecework from spreading in the engineering industry.

Concerning reclassification, the central issue in this Award, Beeby also required that the Union should understand the current economic situation properly. He criticised the Unions' view that the present depression was of a temporary character and there was no need for radical reform:

The unions do not pay proper regard to world conditions. Instead of concentrating their attention on some re-organization which will enable them to maintain their present rate of earnings, they content themselves with the belief that because under different circumstances the industry made great progress between 1915-1925 the present depression is purely temporary, and that the only reform required is greater capital expenditure on modernizing of plants and amalgamation of competing plants...Whatever the employers' responsibility to

17 Ibid., pp. 952-953.
18 Ibid., p. 946.
stimulate production may be, an equally great responsibility rests with the workmen themselves.\textsuperscript{19}

Beeby then drew attention to the changes in the production method which took place in Britain:

The British manufacturer realized that he could not compete in the world's markets by manufacturing on the old jobbing methods...[I]n the engineering section of the industry the proportion of skilled men in 1913 was 60 per cent., semi-skilled 20 per cent., unskilled 20 per cent...In 1926 the proportions were skilled 40 per cent., semi-skilled 45 per cent., unskilled 15 per cent. In addition to this disturbance of the balance of skilled and unskilled labour, systems of payment by results both individual and collective were brought into operation, and overhead charges were reduced by many amalgamations of plants.\textsuperscript{20}

The substitution of semi- and unskilled workers and the widespread use of piecework, Beeby reckoned, were the key to reduce production costs in Britain. In the U.S., a highly specialised production process was considered to be the crucial factor in cost reduction:

In America there have also been great industrial changes during recent years. Although American metal trades manufacturers had before the war adopted mass-production methods, they had by no means exhausted their possibilities. Manufacture by specialized processes has been brought to such a pitch that, although there has been a high increase in nominal wages, the actual labour cost of production has been greatly decreased.\textsuperscript{21}

To compete with those overseas rivals equipped with mass production methods, Beeby persuaded the metal unions to accept the proposed reclassification scheme which intended to reduce labour costs by introducing cheaper labour into the mass production process. Practically, it meant the replacement of tradesmen by unskilled adult and junior workers on manufacturing lines. Beeby

\textsuperscript{19} Ibid., p. 954.
\textsuperscript{20} Ibid., p. 951.
\textsuperscript{21} Ibid., p. 956.
was convinced that this measure had to be taken in order to develop the industry from the 'jobbing' to the 'manufacturing' stage:

It is clearly necessary for this Court to prescribe proper conditions for labour for work which...can only be run on manufacturing lines...While there are factories engaged entirely in manufacturing there are many others engaged in "making" and jobbing, but desirous of introducing manufacturing methods in producing some parts of their products. One manufacturer, for instance, engaged in the making of standard lines of internal combustion engines admitted that the more important part of the engine would probably always be left to the skilled workman, but the engines when finished are assemblages of many parts made separately by specialized processes. The business may reach a stage in which for the making of these interchangeable parts it may be profitable to instal automatic machinery. All he asked for was the same right as his competitors had, when that machinery was installed, to pay the men who worked the machines for the job they did, i.e., to pay them as workers engaged in processes from which skill had been eliminated.\(^\text{22}\)

Beeby and manufacturers hoped that the production line would be divided into a series of simple processes by the introduction of automatic machines, and those engaged on the process work would receive substantially lower wages than tradesmen because of the deskilled nature of the work they would perform.

The Union firmly opposed this plan, because it was an overt intrusion into the domain it traditionally regarded as tradesmen's. The AEU claimed that 'all the work associated with the production of such internal combustion engines (as a typical illustration) is a skilled man's work, and that every man engaged should receive skilled mechanic's wage'.\(^\text{23}\)

Beeby tried to placate the Union's concern, borrowing the employers' logic that, even if mass production was adopted, tradesmen would not be dispensed with because they would assume new roles:

\(^\text{22}\) Ibid., pp. 958-959.
\(^\text{23}\) Ibid., p. 959.
However sincere may be the unions' fear of the de-grading of skilled men, one important factor is persistently overlooked: extension of manufacture by specialized processes creates a new demand for skilled workmen. Each factory has its tool-room in which first-grade tradesmen are required to make jigs, gauges, dies, and other devices for attachment to machines. In each factory there is also work for skilled men in setting machines and supervising the work of automatic machinery operators. In all manufacturing establishments the tool-maker, tool-setter, and superintendents of automatic machine operators find lucrative employment.\(^{24}\)

Nevertheless, the Judge did admit that the numerical importance of tradesmen would decline. However, he regarded it as a 'universal trend' which was beyond the Court's jurisdiction:

In the end, of course, the proportion of skilled men will be reduced. But this is an universal trend, the evils of which can only be met by social legislation...It [the Court] cannot anticipate and itself legislate, nor can it say that...it should restrain the universal trend towards mass production.\(^{25}\)

In spite of this remark, however, it should be borne in mind that Beeby did not aim at eradicating tradesmen. He did give careful consideration to the possible consequences of the introduction of mass production and it was not his intention to degrade tradesmen engaged on the traditional engineering operations:

The problem is to devise industrial conditions which, whilst reasonable for manufacturing industries from which skill has been largely eliminated in actual production, will not lead to unnecessary de-grading of labour in jobbing and contract work and high-grade machinery production.\(^{26}\) Wage-cost reduction without reduction of existing standards of living is only possible by reclassification and higher production per labour unit.\(^{27}\)

\(^{24}\) Ibid., p. 960.

\(^{25}\) Ibid.

\(^{26}\) Ibid., p. 961.

\(^{27}\) Ibid., p. 1021.
In Beeby's view, reclassification and piecework were ideal methods which would achieve the seemingly contradictory goals of increasing productivity without lowering the conditions of legitimate tradesmen.

In any event, Beeby approved all of the following wage-setting principles proposed by the employers, at least where skill was no longer required:

[T]he employers' submission was that men should be paid for the job done, i.e., that the tradesmen's rate should be only paid to a fully qualified mechanic doing mechanic's work; that a machinist's rate should be paid for a machine operator according to the element of skill in his operation; that when skill is eliminated by specialization or by the use of single purpose, automatic and semi-automatic machinery, a workman, whatever his qualifications may be, should be paid the unskilled rate with extra wages only on the giving of extra output; that a process requiring no skill, capable of being done by an entirely unskilled man or a junior, should be paid for at a rate appropriate to the job.\(^\text{28}\)

Beeby then distinguished between 'making' and 'manufacturing' to which the above principles were to be applied. 'Manufacturing' designated the production of interchangeable parts in large quantity, in contrast to 'making (jobbing)' which designated the production in limited numbers.\(^\text{29}\) It was into the 'manufacturing' process that Beeby tried to introduce unapprenticed adult and junior workers.

As has been shown, piecework and reclassification comprised the key of Beeby's industrial reform. In order to implement the controversial reform smoothly, the Judge encouraged the establishment of shop committees.\(^\text{30}\) As shown in the previous Award, Beeby hoped that through shop committees the management and the Union, represented by shop stewards, would


settle industrial problems in the spirit of co-operation and mutual understanding:

Throughout the industrial world it is now recognised that there should be connecting links between workmen and management. The shop committee is becoming an essential factor in the peaceful working of industry, and in these cases many instances were quoted of greater harmony prevailing through co-operation between management and shop committees appointed by workmen for purposes of negotiation. I have submitted for consideration a clause which provides for the election of shop committees by any workshop employing twenty or more workmen, with the right of access during working hours to the management.\(^\text{31}\)

In reality, however, things did not turn out according to Beeby's blueprint. Piecework did not spread widely and shop committees were not established. The traditional shopfloor hierarchy based on the line of foremen, leading hands and rank and file workers remained. Foremen were the representative of the management on the shopfloor who supervised and held responsibility for the whole production. Leading hands, who were not managerial staff and mostly union members, assumed the supervisory role in each work unit. Accepting the Union's claim, Beeby prescribed a higher rate for leading hands in the Award, on the grounds that it had already been a well established system.\(^\text{32}\)

Together with piecework and reclassification, apprenticeships and junior labour were among the essential issues concerning Beeby’s industrial reform. As shown, mass production meant a fundamental challenge to the traditional method of production based on traditional craft-type skill of tradesmen. Therefore, it could not help affecting the traditional system of job training based on apprenticeships. As Beeby understood:

While it is true that each new venture into manufacturing calls for skilled men to make tools and machine fixtures necessary for automatic processes, these increased opportunities do not balance decreases arising from mechanization of labour, and in

\(^\text{31}\) Ibid., p. 978.
\(^\text{32}\) Ibid., p. 971.
the end, when full factory production is reached, skilled men become a small highly paid minority controlling the work of an army of operatives from whose work skill has been eliminated. In modern machine processes manual dexterity acquired in a few weeks or months takes the place of skill, and many operations can readily be done by juniors without long training.  

Naturally, the Union opposed the exploitation of juniors who were used only as cheap labour without receiving proper training. The AEU contended that 'most of the [engineering] work, although unskilled, should be done by tradesmen and apprentices, and that any manufacturing which increased the number and area of "dead-end" occupations should not be encouraged'.  

The underlying problem was who should operate machines. Conventionally, 'unskilled' workers were tradesmen's helpers, who were not allowed to use tools and machines in the trade. However, the introduction of mass production, which made the most use of automatic and semi-automatic machines, led to the deployment of those without craft training on direct manufacturing operations. This, at the same time, meant the decline of tradesmen's control over the manufacturing process. Beeby supported the employers' claim and paved the way for the wider use of unapprenticed juniors, stating, 'This Court cannot decree that a boy must be apprenticed to a skilled trade in order to qualify for machine process work not requiring skill'.  

Based on the understanding presented above, Beeby delivered the following provisions. First, with regard to the classificatory framework and margins, the new Award divided the metal industry into ten sections and prescribed margins respectively, in contrast to the previous awards which had put all occupations of the industry in one tally. The sections were: General Engineering Section; Electrical Section; Electroplating Section; Welding Section; Smithing Section; Boilermaking and Ship Construction Section; Steel

33 Ibid., p. 975.
34 Ibid.
35 Ibid.
Construction Section; Moulding Section; Sheet Metal Section; Ironworking Section. Table 4.1 below shows the classification and margins for the General Engineering Section which concerned the AEU most:

Table 4.1 Margins for the General Engineering Section Prescribed in the 1930 Metal Trades Award

(a) Jobbing and Making Division

<table>
<thead>
<tr>
<th>Position</th>
<th>Margin (s. per week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patternmaker in wood</td>
<td>33</td>
</tr>
<tr>
<td>Toolmaker</td>
<td>30</td>
</tr>
<tr>
<td>Tradesman in gun armament, instrument and torpedo work</td>
<td>30</td>
</tr>
<tr>
<td>Tradesman, the greater part of whose time is occupied in marking off</td>
<td>27</td>
</tr>
<tr>
<td>Tradesman, turbine-blade fitter</td>
<td>27</td>
</tr>
<tr>
<td>Electrical Fitter</td>
<td>26</td>
</tr>
<tr>
<td>Tradesman</td>
<td>24</td>
</tr>
<tr>
<td>Motor Mechanic</td>
<td>24</td>
</tr>
<tr>
<td>Motor Tuner and Tester</td>
<td>24</td>
</tr>
<tr>
<td>Motor-cycle Mechanic</td>
<td>24</td>
</tr>
<tr>
<td>Tradesman, whetstone grinder and glazier</td>
<td>24</td>
</tr>
<tr>
<td>Tradesman, brass finisher</td>
<td>24</td>
</tr>
<tr>
<td>1st Class Machinist</td>
<td>24</td>
</tr>
<tr>
<td>2nd Class Machinist</td>
<td>16</td>
</tr>
<tr>
<td>3rd Class Machinist</td>
<td>12</td>
</tr>
</tbody>
</table>

(b) Manufacturing Division

<table>
<thead>
<tr>
<th>Position</th>
<th>Margin (s. per week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patternmaker</td>
<td>33</td>
</tr>
<tr>
<td>Toolmaker</td>
<td>30</td>
</tr>
<tr>
<td>Tradesman</td>
<td>24</td>
</tr>
<tr>
<td>1st Class Machinist</td>
<td>24</td>
</tr>
<tr>
<td>2nd Class Machinist</td>
<td>16</td>
</tr>
<tr>
<td>3rd Class Machinist</td>
<td>12</td>
</tr>
<tr>
<td>Process Worker</td>
<td>6</td>
</tr>
</tbody>
</table>

36 Ibid., pp. 1026-1027.
The most important feature was the creation of the new category, 'Process Worker' in the 'manufacturing' section. 'Manufacturing' was legally defined in the Award as 'the making in quantities of interchangeable or standardized parts of machinery and mechanical apparatus and of electrical machinery and apparatus and of locks, scales, window-frames, tin and aluminium ware and other metallic articles by specialized processes and the assembling thereof'.

Now, in the quantity production of standardised articles, the employers could lawfully use cheap labour, 'process workers', at the margin of 6s. per week, a fourth of the tradesmen's and even a half of the third-class machinists' margin. In the legal terms, 'process worker' was 'an adult employee engaged on repetition work on any automatic, semi-automatic or single-purpose machine or any machine fitted with jigs, gauges, or other tools rendering operations mechanical or in the assembling of parts of mechanical appliances or other metallic articles so made, or in repetitive hand processes'.

According to the definition, 'process workers' could operate not only advanced automatic and semi-automatic machines but also conventional standard machines when deskilling devices like jigs and fixtures were attached. It was a condition tradesmen could not tolerate.

On the other hand, those skilled workers who made jigs, fixtures, dies, gauges and other precision tools essential to quantity production were, as 'toolmakers', more highly evaluated than ordinary tradesmen. Appreciating the significance of their work for 'manufacturing', Beeby raised toolmakers' margin from 27 to 30s. per week.

As mentioned in Chapter Two, 'toolmakers' were basically tradesmen. That is, experienced tradesman fitters and turners were assigned on toolmaking, which had become, over the years, recognised as a specialised independent trade. This was a case where division of labour created a more highly skilled category than tradesmen. There was another case of specialisation creating a

37 Ibid., p. 1048.
38 Ibid.
new category of highly skilled trade. In the new Award, Beeby established 'tradesmen, the greater part of whose time is occupied in marking off' as a new category, in spite of the employers' opposition, and awarded them the margin of 27s. per week, 3s. higher than the ordinary tradesmen's rate. These decisions indicate that although specialisation was developing in tradesmen's work, it did not necessarily lead to the degrading of tradesmen and in a minority of cases created more highly skilled occupations.

On the other hand, however, it is also a fact that ordinary tradesmen were becoming more and more recognised as 'machinists', because of ongoing mechanisation and job specialisation. It is instructive in this respect to compare the new Award definition of 'tradesman' and that of 'first-class machinist':

"Tradesman" means an adult workman who in the course of his employment works from drawing or prints drawn to scale, or makes precision measurements, or applies general trade experience, and includes locksmith and first class-machinist. "First-class machinist" means a tradesman who is partly or wholly engaged in setting up and operating the following machines: lathe, boring machine, milling machine, planing machine, shaping machine, slotting machine, grinding machine. 39

Now 'tradesmen' were officially recognised as identical with 'first-class machinists'.

Concerning the above definitions, it should be noted that in this Award Beeby made the definition of 'tradesman' more flexible. In previous awards, concrete tasks to be performed were specified in detail, whereas in this Award, the Judge emphasised such elements as discretion and responsibility. The same principle was applied to the definitions of 'second-class machinist' and 'third-class machinist':

"Second-class machinist" means an adult employee not engaged as a tradesman and without the responsibility of a first-class machinist setting up and operating the machines enumerated in the definition of "first-class machinist"...

39 Ibid., p. 1027.
"Third-class machinist" means a machinist, not being a process worker, who operates any machine set up by a tradesman or any machine the setting up of which does not require the knowledge or skill of a second-class machinist.\(^{40}\)

In practice, this type of definition allowed the employers room for more flexible interpretations which could be used as a pretext for cutting wages of those on simplified operations.

With regard to apprentices, workers under the age of 21 engaged in one or more of the following occupations were required to be under the contract of an apprenticeship, so far as the Mechanical Engineering Section was concerned: Pattern-making; Electrical fitting; Fitting and turning; First and second class machinist; First-class welding; Electrical mechanic.\(^{41}\) In the previous Award, the occupations for which apprenticeships were required were 'fitting and turning', 'fitting and machining other than turning' and 'turning and other machining'. Now, apprenticeship trades were more diversified and specified, reflecting ongoing division of labour. It also should be noted that the Court recognised apprenticeships more and more as the training of machinists.

As to the wages of apprentices, the Judge made only slight adjustments. The proportion of apprentices to tradesmen varied according to the Sections. In the traditional sectors like the Mechanical Engineering and the Smithing Sections, the ratio remained as one apprentice for every three tradesmen. On the

\(^{40}\) *Ibid.* Incidentally, the definitions of 'second-class machinist' and 'third-class machinist' in the previous award were as follows.

'Second-class machinist means gear cutters not using milling machine, lappers and grinders not using the same precision tools as fitters or turners, brass-finishers not engineering or other first class brass-finishers, moulders, coremakers (iron), pipe fitters (not on high pressure steam works, high pressure, air ammonia and hydraulic work), key-seaters and/or drillers, rail planers, springsmith's machinists on railways'.

'Third-class machinist' means drillers not using cutter bar, screwers, machinists making nuts, bolts or dog spikes, coremakers (brass), drillers (plain or twist), hydraulic and/or power press machinists, metal sawers, sheet metal or coppersmith's machinists, blacksmith's machinists, springsmith's machinists not on railways, tapping machinists, and punching and shearing machinists'.

other hand, in such new sectors as the Electrical Mechanic and the Motor Mechanic Sections, the proportion was set as one for every two tradesmen.

More important were the provisions which enabled the industry to use unapprenticed juniors. They were now available for any occupations for which an apprenticeship was not required. The wages of unapprenticed juniors, compared to those of apprentices, are shown in Table 4.2.

Table 4.2 Weekly Wages of Apprentices and Unapprenticed Juniors Prescribed in the 1930 Metal Trades Award

<table>
<thead>
<tr>
<th>Apprentices</th>
<th>Unapprenticed Juniors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>18s.</td>
</tr>
<tr>
<td>2nd year</td>
<td>24s.</td>
</tr>
<tr>
<td>3rd year</td>
<td>38s.</td>
</tr>
<tr>
<td>4th year</td>
<td>57s. 6d.</td>
</tr>
<tr>
<td>5th year</td>
<td>72s. 6d.</td>
</tr>
<tr>
<td>1st year's experience</td>
<td>15s.</td>
</tr>
<tr>
<td>2nd year's experience</td>
<td>20s.</td>
</tr>
<tr>
<td>3rd year's experience</td>
<td>27. 6d.</td>
</tr>
<tr>
<td>4th year's experience</td>
<td>35s.</td>
</tr>
<tr>
<td>5th year's experience</td>
<td>40s.</td>
</tr>
<tr>
<td>Thereafter until reaching 21 years of age</td>
<td>45s.</td>
</tr>
</tbody>
</table>

As can be seen, the wages of unapprenticed juniors were more restricted than those of apprentices and the difference was progressively widened with age.

Moreover, adult and junior females were also legally permitted to be engaged, at further cheaper wages, in 'specialized processes and assembling of small parts of electrical and other machinery and appliances, armature winding, and such work in the sheet metal, enamelling, and canister-making industry, and in core-making, in which females were employed at the time of the making of this award'.

With regard to other provisions, the standard working hours remained 44 and overtime rates also remained time and a half for

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42 Ibid.
43 Ibid.
the first four hours and double time thereafter. However, Beeby gave the employers the right to choose between weekly and daily hiring in the condition that, in the case of daily hiring, wages should be set at 5s. per week higher than the normal Award rates as a compensation for holiday pay and sick leave. Practically, this meant the reversion to daily hiring. On this issue, the AEU was angered not only by the Court but by other metal unions, because Beeby made the decision on the grounds that all unions concerned, except for the AEU, agreed with the provision.

Thus, in the so-called Metal Trades Award in 1930, Beeby's ideas of industrial reform materialised: to help develop 'manufacturing', distinguished from 'jobbing and making', in Australia; to reduce production costs, in order to compete with overseas rivals, by introducing cheaper labour as well as popularising piecework. This reform, Beeby hoped, would be carried out in the spirit of industrial harmony with the positive participation of both the employers and the employees into the process. Finally, it should be reiterated that, although Beeby broke traditional industrial principles in many respects, he did not aim at the complete destruction of the stratum of tradesmen engineers. In any case, whether Beeby's reform plans were realised as he intended is a different matter, examined in Chapter Five.

In 1935, Beeby revised the Metal Trades Award. By that time the economy was already well on the way to recovery. Therefore, the Judge proclaimed that his scheme of developing mass production without hampering tradesmen's industrial status had worked successfully:

When making the award [in 1930] the Court realized that critical times were ahead, and sought to re-organize industrial considerations in such a way as to encourage the development of new industries without reducing opportunities for employment of skilled mechanics...After five years' experience the wisdom of this change has been established. Manufacture of machinery and electrical appliances and metallic articles by mass production methods has greatly increased, and, as anticipated, while these methods have added to the ranks of unskilled, semi-skilled and junior labour, they have largely increased opportunities of employment for skilled mechanics as
die and tool makers, machine setters and makers of machinery used in repetitive processes.\textsuperscript{44}

[T]he rapid development of manufacturing has led to the absorption of most of the unemployed skilled tradesmen...[I]n some States mechanics are scarce and unions are frequently unable to meet requests to supply them. Turners, fitters, electrical fitters, first grade machinists and some others just now can pick and choose employment.\textsuperscript{45}

Based on this recognition, Beeby increased tradesmen's margin by 3s. to 27s per week. By so doing, he admitted that, in determining tradesmen's margin in the previous case, he had given priority to economic concern over the evaluation of their work:

At that time [i.e., in 1930] I was convinced...that the margin for the skill of a fully qualified artisan above the basic wage is too low. But any material wage increase at that moment would have reacted harmfully on the industry and its employers. Now the outlook in the group of industries concerned has changed.\textsuperscript{46}

I am satisfied that as a matter of industrial justice, the margins to skilled tradesmen should be increased, and that in present circumstances the metal trades industries can stand some increase.\textsuperscript{47}

It should be borne in mind that Beeby always held tradesman engineers in high regard. However, when he set margins in 1930, he gave economic conditions priority.

In contrast to the generous raise for tradesmen, Beeby's treatment of non-skilled workers was not so favourable. The Judge declined the Union's demand for the across-the-board increase in margins for all occupations, on the grounds that the economic recovery was insufficient to afford such a pay rise.\textsuperscript{48} Thus, the margins for such semi-skilled workers as 'second-class machinists', 'third-class machinists' and 'process workers' remained unchanged. This decision was also a reflection of Beeby's consistent intention to

\textsuperscript{44} 34 CAR 449 at p. 452.
\textsuperscript{45} Ibid. p. 453.
\textsuperscript{46} Ibid.
\textsuperscript{47} Ibid., p. 455.
\textsuperscript{48} Ibid., pp. 455-456.
make cheap labour available for simplified operations, while maintaining the industrial status of tradesmen who played the essential part in production.

The development of new industries like the motor and electrical industries also caused complex problems with regard to margins, because these industries produced workers who acquired a new kind of expertise which was different from craft-type skill taught in an apprenticeship. How to evaluate the new kind of skill became a matter of contention. As to 'electrical mechanics', for instance, Beeby raised their margins by as much as 4s. per week, although it was still kept below the tradesmen's rate. The Judge highly appreciated their skill although they had not served an apprenticeship:

Originally the [electrical] mechanic was mainly engaged in wiring and connecting electrical light and power units. Much of the work was done by men who had not served an apprenticeship...[T]he wider use of electric light and power with the adoption of higher voltages and alternating current has brought industrial changes. The work of mechanics is more important than in 1930. In New South Wales installation work can only be done by men who obtain certificates after examination. In other States employers look for trained men. Although the mechanic is still not as highly trained as the fitter the gap in skill required has been reduced.49

In contrast, the margin of 'electrical fitters' was reduced to the same rate as ordinary fitters, on the grounds that they were now apprenticed to 'electrical fitting' as a separate trade unlike several years before when they had been recruited from ordinary fitters and given extra training.50

Table 4.3 below compares the margins for the Engineering Division in the 1935 Award to those in the previous Award.

49 Ibid., p. 457.
50 Ibid.
Table 4.3 Margins Prescribed in the 1935 Metal Trades Award

<table>
<thead>
<tr>
<th>Trades</th>
<th>1935</th>
<th>Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>(s. per week)</td>
<td>1930</td>
<td></td>
</tr>
</tbody>
</table>

- Aero Mechanic holding A and B certificates: 40
- Patternmaker: 36
- Toolmaker: 33
- Tradesman in gun armament, instrument and torpedo work: 33
- Aero Mechanic holding C and D certificates: 30
- Tradesman, the greater part of whose time is occupied in marking off: 30
- Tradesman, turbine-blade fitter: 30
- Electrical Fitter: 27
- Tradesman: 27
- Tradesman, whetstone grinder and glazier: 27
- Tradesman, brass finisher: 27
- 1st Class Machinist: 27
- Motor Mechanic: 24
- Motor Tune and Tester: 24
- Motor-cycle Mechanic: 24
- 2nd Class Machinist: 18
- 3rd Class Machinist: 12
- Process Worker: 6

As can be seen, the categories of 'tradesmen' who specialised in particular highly-skilled operation was further diversified and awarded generous margin increases, whereas the margins for the non-skilled were restricted as a whole.

The industrial changes in the 1930s entailing the development of manufacturing had significant affects on the training of minors. As mass production required a large number of cheap, unskilled workers, Beeby stressed the necessity to mobilise adult process workers and unapprenticed juniors into the industry. Therefore, he declined the Union's claim that the proportion of unapprenticed juniors to adult workers should be determined. The Judge also rebuffed the Union's demand that the wages of unapprenticed

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51 Ibid., pp. 464-465.
52 Ibid., p. 459.
53 Ibid., pp. 460-461.
minors should be fixed on the age basis, instead of the experience basis as currently regulated. Beeby reasoned that the experience basis was more desirable, although he did admit that there were some cases found where the provision was abused by the employers:

Some employers also misused the system by dismissing employees after one or two years experience, and taking on fresh employees at lower rates. But this has not become a general practice in the industry...The youth who leaves school at a late age, and who cannot find employment in apprenticeship trades, can often get a start in a factory provided his starting wage is not rigidly fixed on an age basis. For the present it is necessary to keep every possible avenue of employment open to these victims of the depression.54

While making sure that cheap non-skilled labour was available for simplified operations, Beeby was also aware of the necessity to provide the industry with the sufficient amount of the skilled workforce:

It is true that there has been a great increase of junior labour employed, but...this has been accompanied with new avenues of employment for tradesmen. While some thousands of juniors are now employed in simple machine processes and in the assembling of small parts, every new or extended factory has its staff of tool-makers and machine-fixers. In addition to this, many skilled mechanics have found employment in the manufacture of machines, presses and other appliances used in mass production.55

The Judge recognised that the training of competent tradesmen, an integral part of mass production, was imperative. However, because apprenticeship training had virtually halted during the Great Depression, Beeby felt that some measures had to be taken to supply enough tradesmen so that the current recovery would continue smoothly:

The general economic collapse which followed the 1930 award resulted in apprenticeship almost entirely falling into disuse. Employers appear to regard the obligations of the old

54 Ibid., p. 461.
55 Ibid., p. 460.
apprenticeship conditions as too onerous, and allege that the temperament of Australian youth in these days makes it necessary to find some method other than rigid apprenticeship for the training of skilled operatives. I am inclined to the opinion that the old system, with its flavour of "master and servant", is inappropriate to modern youth. But its abandonment without some effective system for the future training of skilled tradesmen cannot be entertained.  

Thus, he tried to make the conventional apprenticeship system more flexible by admitting 'trainees' into skilled training alongside with apprentices. It should be noted, however, that, despite his intention of enlarging the skilled workforce, Beeby did not attempt to demolish the traditional apprenticeship system. In any event, Beeby gave an official sanction to the NSW State Government's attempt to give 'trainees', unindentured minors, the same training as indentured apprentices and treat both equally.

The wages of apprentices and unapprenticed juniors are shown, in comparison with those in the previous Award, in Table 4.4 and Table 4.5. The wages of apprentices were significantly reduced across-the-board and the wage gap between apprenticed and unapprenticed juniors was considerably narrowed. This indicates that, with the development of manufacturing, another career path was being paved in the engineering industry for unskilled workers who did not take the traditional course from apprentices to tradesmen.

Table 4.4   Weekly Wages of Apprentices Prescribed in the 1935 Metal Trades Award  

<table>
<thead>
<tr>
<th>Year</th>
<th>1935</th>
<th>1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year</td>
<td>15s.</td>
<td>18s.</td>
</tr>
<tr>
<td>2nd year</td>
<td>20s. 6d.</td>
<td>24s.</td>
</tr>
<tr>
<td>3rd year</td>
<td>30s. 6d.</td>
<td>38s.</td>
</tr>
<tr>
<td>4th year</td>
<td>50s.</td>
<td>57s. 6d.</td>
</tr>
<tr>
<td>5th year</td>
<td>63s.</td>
<td>72s. 6d.</td>
</tr>
</tbody>
</table>

56 Ibid., p. 459.  
57 Ibid., p. 460.  
58 Ibid., p. 473.
Table 4.5  Weekly Wages of Unapprenticed Male Juniors
Prescribed in the 1935 Metal Trades Award

<table>
<thead>
<tr>
<th>Experience</th>
<th>1935</th>
<th>1930</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st year's experience</td>
<td>15s.</td>
<td>15s.</td>
</tr>
<tr>
<td>2nd year's experience</td>
<td>20s.</td>
<td>20s.</td>
</tr>
<tr>
<td>3rd year's experience</td>
<td>27s. 6d.</td>
<td>27s. 6d.</td>
</tr>
<tr>
<td>4th year's experience</td>
<td>37s. 6d.</td>
<td>35s.</td>
</tr>
<tr>
<td>5th year's experience</td>
<td>47s. 6d.</td>
<td>40s.</td>
</tr>
<tr>
<td>6th year's experience</td>
<td>55s.</td>
<td>45s. (until 21 years of age)</td>
</tr>
<tr>
<td>7th year's experience</td>
<td>58s. 8d.</td>
<td></td>
</tr>
</tbody>
</table>

The most significant change in Beeby's attitude since the previous Award was with regard to piecework. As mentioned, by 1935, he lost interest in spreading the method of payment by results. He explained the change of his mind as follows:

In industries which lend themselves to the employment of juniors it is extremely difficult to devise a wage schedule which will result in juniors moving up from year to year, until reaching adult age, and then continuing as process workers. In 1930 I thought that the adoption of piece-work rates might have this result. But now it is evident that, where output is not regulated by the dexterity of the operative, but by the machine, piece-work may not be an appropriate system of payment.60

It is confirmed in the above comment that when Beeby tried to spread piecework, his intention was to apply this method mainly to process workers engaged on simple repetitive operations, rather than to skilled workers. While keeping process workers' weekly wage rate low, the Judge expected that they would earn extra bonuses through payment by results. Initially, Beeby regarded piecework as a fair system, because more experienced workers would earn more. However, it now turned out that the pace of the work of process workers was regulated predominantly by machines and the abilities and experience of individual workers did not count. In this recognition, Beeby no longer conceived of piecework as fair and appropriate.

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59 Ibid., p. 470.
60 Ibid., p. 462.
In any case, by the mid 1930s, piecework had already been removed from the centre of industrial contention. As a matter of fact, so far as the core engineering operations, like fitting, turning and machining, were concerned, the piecework system was never widely adopted. Nevertheless, the process of recovery was proceeding satisfactorily. The incentive to impose this system itself had been lost.

In 1937, the 1935 Award was renewed. The main feature of the new Award was that Beeby this time increased margins across-the-board, including those of the semi-skilled who had been neglected in the previous case. In 1937, the industry had already recovered from the ravages of the Depression and continued to grow. Now Beeby held that the industry could accommodate further wage increases:

[In 1935] I deliberately refrained from conceding increases in the margins of most of the lower grades of labour and stated that the Court had not come to the conclusion that the general improvement in the industry was sufficient to justify all round increases...Nearly all important firms are now [in 1937] working to full capacity: unemployment has steadily fallen until today: employers have difficulty in obtaining skilled men...[A] substantial number of employees are paid more than the award rates...Nearly all manufacturers are now making profits...Not withstanding tariff revisions resulting from the Ottawa agreement employers at present seem able to meet foreign competition and imports are relatively less than in 1929.61

Based on this positive view on the developing economy, Beeby granted yet another 3s. margin increase for the skilled, as well as adding 2s. to the margins for the less skilled. The new margins, compared to the previous ones, are shown in Table 4.6. It should be noted that the classificatory framework itself remained unchanged and there were no significant changes with regard to other major terms of employment.

Finally, it is worth quoting the following comment by Beeby in order to understand better the career path of non-skilled...
machinists, although it is not about the core engineering operations but about moulding. The Judge increased machine moulders' margin which he had set as low as 9s. per week in the previous Award. He explained the reason for this decision as follows:

Some employers whose operations are not adaptable to piece-work have paid only 9s. margin to competent men and in other instances have employed floor moulders on machine moulding on the marginal rates. The machine moulder...is recruited...usually from labourers who have picked up a good deal of knowledge when assisting floor moulders. A labourer when put on to machine moulding undoubtedly is not able to give average output but constant practice at the same jobs soon results in his being able to undertake more intricate jobs and to give satisfactory output. A fully competent machine moulder able to do any class of work put on to the machines is undoubtedly worth much higher margins than 9s. per week.62

As Beeby admitted, although he had previously prescribed a relatively low margin for machine moulders, in the expectation that those more experienced would gain extra income by piecework, things did not turn out as he had desired. To rectify the situation, Beeby prescribed the margins as follows based on the experience as the unions demanded: for the first 6 months experience, 9s. per week; for the second 6 month experience, 12s.; for the third 6 months experience, 15s.; after 2 years experience, 20s. The margin of 20s. a week corresponded to that of second-class machinists. A career path was being made, outside the apprentices-tradesmen course, for junior labourers. They were not apprenticed, but proceeded with their career as machinists, although they could not become equal to first class machinists (tradesmen).

62 Ibid.
Table 4.6 Margins Prescribed in the 1937 Metal Trades Award 63

<table>
<thead>
<tr>
<th>Trade Description</th>
<th>1937</th>
<th>1935</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aero Mechanic holding A and B certificates</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>Patternmaker</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>Toolmaker</td>
<td>36</td>
<td>33</td>
</tr>
<tr>
<td>Tradesman in gun armament, instrument and torpedo work</td>
<td>36</td>
<td>33</td>
</tr>
<tr>
<td>Tradesman, the greater part of whose time is occupied in marking off</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>Tradesman, turbine-blade fitter</td>
<td>33</td>
<td>30</td>
</tr>
<tr>
<td>Aero Mechanic holding C and D certificates</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Electrical Fitter</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Tradesman</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Tradesman, whetstone grinder and glazier</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Tradesman, brass finisher</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>1st Class Machinist</td>
<td>30</td>
<td>27</td>
</tr>
<tr>
<td>Motor Mechanic</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>Motor Tuner and Tester</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>Motor-cycle Mechanic</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>2nd Class Machinist</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>3rd Class Machinist</td>
<td>14</td>
<td>12</td>
</tr>
<tr>
<td>Process Worker</td>
<td>8</td>
<td>6</td>
</tr>
</tbody>
</table>

To conclude, Beeby was a Judge who set himself the task of carrying out an industrial reform in the industry in order to develop manufacturing in Australia. For this purpose, he took drastic measures, like piecework and reclassification, which directly ran counter to conventional craft regulation. However, it should be borne in mind that Beeby never aimed at the complete breakdown of the traditional apprentices-tradesmen system. The careful examination of his awards revealed that his attitude was rather eclectic. The Judge kept his high regard for skilled tradesmen, while attempting to apply drastic measures so far as the simple, repetitive section of production was concerned.

63 Ibid., p. 186.