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The Australian Labor Market\*

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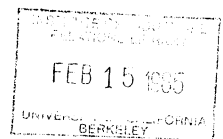
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Comments and suggestions are invited.

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Analysis of the Australian labor market is in some ways very familiar to a foreign observer, and in other ways very different. The basic trends in industrial and occupational employment and in female participation in the workforce are of no surprise to an American economist. In absolute terms, the numbers of employees are small, reflecting the smaller population size of the country as compared with the U.S. But expressed as rates and ratios, similar trends are evident in both countries. The first two sections that follow explore these trends.

In the 1960s, the problem of unemployment was little discussed in Australia. Unemployment rates were so low during that period that even subgroups in the population with higher-than-average rates attracted little attention. But by the mid 1970s, Australia experienced unemployment rates in the American range for the first time in many years. Unemployment, and what to do about it, surfaced as a major concern of economic policy. Not surprisingly, as unemployment rose, concerns about immigration policy increased apace. Sections III and IV discuss this transformation and the policy reactions to it.

The foreign analyst is on least familiar ground in the realm of industrial relations and wage determination. Australia has a major union federation, the Australian Council of Trade Unions (ACTU), to whose affiliates belong the bulk of the country's union members. Its counterpart on the employ-

er side, the Confederation of Australian Industry, has a clear role as the dominant management group. Yet at that point similarities with other countries rapidly fade. In Australia, labor and management deal with each other in large measure through a unique system of quasi-judicial compulsory arbitration. While the system has both state and federal components, the leading wage decisions at the national level are made periodically by the Australian Conciliation and Arbitration Commission. In theory, strikes are illegal and disputes are to be resolved through arbitration.

Because wage decisions are inherently centralized in Australia, concerns about inflation inevitably lead to discussion - and sometimes implementation - of incomes policy. Not surprisingly, stagflation in the early 1980s increased the tempo of this debate. Ultimately, in early 1983, a new Labour Party government was elected on a platform of using incomes policy and a social accord to resolve Australia's macro-economic difficulties. Sections V-VII discuss Australia's unusual wage-setting system and its influence on the larger industrial relations process. The issue of incomes policy itself is addressed in Section VIII.

As important as the issue of incomes policy and wage restraint is to economic policy, it is not the only matter of concern to labor and management. Centralized wage mechanisms have a tendency to overwhelm industrial relations at the local level. In the concluding Section IX, the need to improve workplace-level relationships - as well as deal with the macro-economics of wage determination - is emphasized.

# I. Trends in the Australian Employment Pattern

The Australian labor market has exhibited trends which will be familiar to students of virtually any advanced industrialized country. Although agricultural products constitute an important component of exports, agricultural employment constitutes a small and declining fraction of the employed workforce. As Table 1 shows, agriculture and related industries accounted for only 6 1/2 percent of total employment in 1982. The industrial sector of the workforce has also declined, although not in absolute terms. Employment in mining, manufacturing, construction, and transport and storage accounted for over 40 percent of employment in 1966; by 1982 this fraction had fallen to one-third. In particular, manufacturing employment - hit by both recession and tariff cuts in the mid-1970 - was virtually stagnant during the 1966-82 period.<sup>1</sup>

Growth has been heavily in the "service" areas. In particular, "community services," the sector containing much of the government's workforce, expanded rapidly over the period covered by Table 1. Thirty-seven percent of the jobs added during 1966-82 were in the community services area, a sector which initially accounted for only 10 percent of total employment. Financial and business services also increased rapidly, providing almost one out of five jobs created.

Given these trends, it is not surprising that professional, technical, and clerical occupations accounted for almost three-fifths of the job growth. In contrast only one out of eight jobs were created in traditional blue-collar, industrial occupations (transport and communication workers and tradesmen, et al), a classification of employment which accounted for over four out of ten jobs in 1966.

The employer mix was also shifting during this period. In Australia, apart from traditional civil-service employment, there is substantial govern-

Table 1

Growth and Composition of Employment by Industry  
and Occupation, 1966-1982

Category	Employment (000s)		Growth Employment (annual rate), 1966-1982 (3)	Composition of Employment	
	1966 (1)	1982 (2)		1966 (4)	1982 (5)
Industry					
- Agriculture, Services to agri- culture, forestry, fishing, hunting	429.6	410.0	-.3%	8.9%	6.5%
- Mining	58.0	90.5	2.8	1.2	1.4
- Manufacturing	1,232.5	1,192.7	-.2	25.5	18.8
- Construction	406.0	464.2	.8	8.4	7.3
- Wholesale & retail trade	993.5	1,239.9	1.4	20.6	19.5
- Transport and storage	270.0	373.9	2.1	5.6	5.9
- Finance, insurance, real estate, business services	294.4	582.9	4.4	6.1	9.2
- Community services	486.0	1,050.2	4.9	10.1	16.5
- Entertainment, rec- reation, restau- rants, hotels, personal services	287.0	399.7	2.1	5.9	6.3
- Other industries	366.9	543.6	2.5	7.6	8.6
Occupation					
- Professional, tech- nical and related	472.8	978.1	4.6%	9.8%	15.4%
- Administrative, executive, managerial	330.1	429.9	1.7	6.8	6.8
- Clerical	729.0	1,117.7	2.7	15.1	17.6
- Sales	397.7	552.2	2.1	8.2	8.7
- Farmers, fishermen, timber gatherers	464.8	444.0	-.3	9.6	7.0
- Transport and communication	302.5	333.1	.6	6.3	5.2
- Tradesmen, produc- tion-process workers, miners, quarrymen, n.e.c.	1,731.3	1,892.6	.6	35.9	29.8
- Service, sport, recreation	395.7	600.0	2.6	8.2	9.5
Total	4,823.9	6,347.6	1.7%	100.0%	100.0%

Note: Details need not add to totals due to rounding.

Source: Australian Bureau of Statistics, The Labor Force, cat. no. 6203.0, 6204.0,  
various issues.

ment ownership of enterprises in such industries as rail and air transport, public transit, utilities, telecommunications, broadcasting, and banking. About 22 percent of all employed persons worked for government in 1971, a proportion which rose rapidly to 25 percent during the Whitlam Labour Government years (1972-75). (See Appendix Table A-1). However, even these figures understate the significance of government as an employer. If only wage and salary earners are considered, the proportion working for the government in 1981 was approximately 30 percent. By way of contrast, the American equivalent figure would be about 18 percent.<sup>2</sup> Government is a major employer in Australia, and therefore capable of influencing wage determination and industrial relations directly.

The shifting structure of Australian employment carries various implications. Expanding professional and technical occupations involve higher-than-average levels of educational attainment and human capital.<sup>3</sup> White-collar employees may well have different expectations about employment conditions, relations with employers, etc. They may also have greater interest in fringe benefits and other forms of non-cash compensation than has been the standard practice in Australia. While the labor movement has succeeded in expanding into the newer areas of employment in Australia, the practice of industrial relations may well change. Employees in the newer sectors of employment growth have been less militant in the past than workers in such areas as mining and manufacturing.<sup>4</sup> They may be more receptive on a long-term basis to the use of the arbitration system to settle disputes, particularly since a recent High Court decision has expanded the reach of the federal arbitration authorities into areas previously not considered "industrial."<sup>5</sup>

## II. Trends in Labor-Force Participation

Australia's labor force exhibits two characteristics found in other English-speaking countries: declining male participation rates and rising female participation. The rate of increase for women, especially married women, was especially dramatic until the mid 1970s, after which the increase continued but at a more moderate pace. Table 2a and Appendix Table A-2 summarize these trends.

### i. Women in the Labor Market

Econometric efforts to explain female labor-force participation in Australia have not been especially successful. Wage variables, in particular, do not appear to have much explanatory power. One argument that has been made to explain this finding is that the female wage has been historically kept above market-clearing levels by the wage arbitration system so that there is chronic excess supply.<sup>6</sup> It does appear that level of education is positively associated with female participation.<sup>7</sup>

As in the U.S. and other countries, women have tended to be crowded into certain heavily-female occupations such as clerical work. While this tendency appears to have been declining on certain dimensions - primarily shifts of women to "mixed-sex" jobs rather than male jobs - there is still a marked demarcation between the male and female labor markets in both public and private employment.<sup>8</sup> Married women who worked contributed about 18 percent of total family income, a proportion reflecting both lower female wages compared with male and a greater propensity for women to work part time.<sup>9</sup> Forty-five percent of married women worked part-time (less than 35 hours per week) in May 1981, compared with 21 percent of other women and 5 percent of males.<sup>10</sup>

Some have argued that Australian attitudes about women and work have not changed as rapidly as in the U.S.<sup>11</sup> Equal employment opportunity (EEO)



Table 2a

Labor-Force Participation Rates, 1966-82

	1966 (1)	1974 (2)	1982 (3)
All Groups	59.8%	61.4%	60.0%
Males	83.9	81.0	77.6
Females	36.2	42.2	43.9
Married	29.0	40.7	42.0

Source: See appendix Table A-2.

Table 2b

Trend in Unemployment and the Employment-to-Population Ratio,  
1965-81

	Unemployment Rate (1)	Employment-to- Population Ratio (2)
1965-70	1.7%	60.0%
1971	1.9	61.1
1972	2.6	60.6
1973	2.3	61.2
1974	2.7	61.3
1975	4.9	60.1
1976	4.8	59.7
1977	5.6	59.2
1978	6.3	58.1
1979	6.2	57.9
1980	6.1	58.4
1981	5.8	58.4

Source: U.S. Bureau of Labor Statistics, printout  
provided to author.

legislation exists in Australia with the protected groups being women, Aborigines, and immigrants. However, such legislation in the U.S. was initially rooted in the racial issue before women's issues became a major public concern. Aborigines account for about one percent of the Australian population, so that EEO did not become a burning issue in Australia on racial grounds. What legislation there is does not appear to have had the profound influence on personnel management practice in Australia that occurred in the U.S. Limits on female employment in certain types of work still appear in awards of the arbitration system and in various kinds of "protective" laws.<sup>12</sup>

Australia did embark on one remarkable experiment with regard to women in the workforce. As in the U.S., a considerable gap existed in the 1960s between average female and male pay. Standardizing for personal characteristics accounts for some of the differential, but still leaves much of it unexplained.<sup>13</sup> In the U.S., the only legislative response has been the Equal Pay Act of 1963, which requires equal pay rates for men and women on the same job. Since men and women typically find themselves in different jobs, however, the law is of limited impact on the overall female-to-male wage differential. As a result, the issue of "comparable worth" arose in the U.S. in the late 1970s, with proponents arguing that women's skills are systematically undervalued in female-dominated jobs, and arguing - in essence - for pay increases in "women's" occupations through various court challenges under existing EEO legislation.<sup>14</sup> However, American courts, which are not normally geared to wage determination, have been reluctant to jump into the issue.

Australia does have a system of wage courts, the federal and state arbitration systems, whose job is precisely to set pay rates. In 1969, the federal arbitration authorities adopted the principle of "equal pay for equal

work." This decision, to be implemented in stages by 1972, was roughly analogous to the American Equal Pay Act. A second decision in 1972 - to be implemented in stages by mid 1975 - established the principle of "equal pay for equal value," an idea roughly equivalent to the "comparable worth" notion currently under debate in the U.S.<sup>15</sup>

The wage impact of these decisions will be discussed below in the analysis of the arbitration system. However, suffice it to say, the ratio of official minimum wage rates for females to male rates rose from 74 percent in 1970 to 94 percent by the late 1970s. The ratio based on earnings rose from 65 percent to about 86 percent.<sup>16</sup> These adjustments are remarkable since there was no profound change in occupational structure to explain them - they were not "market" results - and because they stand in contrast to the U.S. experience in the 1970s where the female-to-male earnings ratio was virtually unchanged during the 1970s.

Economists are prone to believe that significant changes in relative prices or wages will lead to important changes in resource allocation and have struggled to find symptoms of such effects after the equal pay decisions. Yet the gross numbers show that the proportion of women in the labor force and in total employment kept rising in the late 1970s, and that the ratio of female to male unemployment rates did not rise (it fell). Researchers need to "tease" the data to come up with any signs that the demand for female relative to male labor was reduced. For example, the ratio of female employees to total employees rose about 1.9 percent per year from 1966 to 1970. Had that rate been maintained, by 1982, the ratio should have reached a little over 40 percent. Instead it reached only 36.7 percent.<sup>17</sup> Was the shortfall due to the relative wage effect, or was it due to other factors which slowed down the growth in female employment rates?

Some have argued that changes in industrial structure, i.e., a shift toward female-using industries, arrived as a deus ex machina to prevent a deterioration in female work opportunities.<sup>18</sup> Others emphasize the factor of segmented labor markets; males and females are not highly substitutable under current institutional arrangements, according to this argument, so that changes in their relative wage levels have little impact on their relative rates of employment.<sup>19</sup> Whatever the explanation, it is likely that considerable foreign interest in the Australian experiment will develop as word of the episode spreads.

#### 11. Young and Old

Teenagers, both male and female, experienced declining participation until the mid 1970s, after which - despite increased labor-market slackness - their participation rates increased. This phenomenon contributing to growing concern about youth labor-market problems, the transition from school to work, etc. Older workers, especially males, have exhibited a dramatic drop in participation, much of it concentrated in the period after 1974. For example, the participation rate for males aged 60-64 dropped from 72 percent to 48 percent from 1974 to 1982, although in the previous eight years it had declined only 8 percentage points. These declines may be associated with the enhancement of various social welfare programs - age pensions, disability, and so on - in the early 1970s.<sup>20</sup> Private retirement schemes also have become more commonplace in recent years.

#### III. The Issue of Unemployment

Many countries found themselves unable to reduce their unemployment rates after the worldwide recession of the mid 1970s, a recession triggered by the OPEC oil price shock and its inflationary consequences. Australia seemed to be particularly hard hit by this problem, especially in compari-

son with its earlier performance. During the late 1960s, as shown on Table 2b, Australia's unemployment rate averaged less than 2 percent. In the 1973-75 period, the unemployment rate jumped dramatically to almost 5 percent. After 1976, the rate never fell below 5 percent and by 1983, the rate soared over 10 percent.

i. The Natural or Structural Unemployment Rate

Although movements in the overall unemployment rate are usually associated with macro-economic policy, it is natural that rising unemployment would trigger a search for other possible causes. Wage equation studies estimated over earlier periods tended to put the "natural" rate of unemployment at perhaps 2 percent prior to the experience of the late 1970s and early 1980s.<sup>21</sup> The question is raised, then, as to whether some structural shifts in the workforce or in institutional arrangements somehow raised the natural rate.

ii. Demographic Shifts

Observers of the American scene have pointed to changing demographics of the labor force as a possible source of a structural shift in the unemployment rate.<sup>22</sup> However, this channel does not appear promising as an explanatory factor in Australia. In essence, for demographic factors to explain an upward shift in the unemployment rate, it must be the case that groups which tend to experience high unemployment rates have grown dramatically as a proportion of the workforce. But in the Australian case, there are a variety of conflicting tendencies at work.

Table 3 shows the result of a calculation of a hypothetical unemployment rate - based solely on the changes in the proportions of 19 demographic groups in the labor force - had each group consistently exhibited its November 1980 unemployment rate over the period covered by the table.<sup>23</sup> Virtually no change in the rate due to weight shifts alone is visible from the mid

Table 3

Hypothetical Unemployment Rate Derived  
from 1980 Base Unemployment Figures  
and 1966-82 Labor-Force Weights

Year	Hypothetical Unemployment Rate
1966	5.3%
1970	5.2
1974	5.2
1978	5.3
1982	5.3

Note: Unemployment base figures as  
of November 1980.

Source: Australian Bureau of Statistics,  
The Labor Force, cat. no. 6203.0,  
6204.0, various issues.

1960s to the early 1980s. Young people - who had relatively high unemployment rates - tended to decline as a fraction of the workforce. Middle-aged married women, with below-average unemployment rates, increased their representation over the period. But older workers, with below-average rates, declined as a proportion of the workforce. Obviously, use of different base periods, weighing schemes, etc., would change the results somewhat. But it seems unlikely that an explanation of rising unemployment based on demographics could be teased out of the data.

### iii. Unemployment Benefits

Because the early 1970s, during the period of the Whitlam Labour government, saw a rise in various social welfare programs, it might be asked whether these programs amounted to an institutional change which could explain some of the increased unemployment. In theory, social welfare programs could have such an effect, if they discouraged job seekers from accepting employment or brought people into the labor force who did not find work. However, reverse effects are also possible. For example, programs to provide income assistance to the sick and disabled might well pull people out of the labor force whose job-finding prospects would otherwise be limited. Job-creation schemes could lower the rate, or - even if overcome by substitution effects - leave it substantially unchanged.

The major a priori candidate for an unemployment increasing effect is unemployment benefits. Unemployment benefits in Australia are financed by general revenue, not by payroll or other employer taxes. As such, they do not have the "experience rating" feature of the typical U.S. unemployment program. Such benefits could provide a marginal subsidy to employers with erratic employment and layoff patterns, especially since partial earnings are heavily "taxed" by the system. The availability of benefits could lengthen job search by the unemployed. Finally, individuals might be attracted into

the labor force by the availability of benefits and exhibit job-search behavior to establish eligibility. Any of these effects could raise the unemployment rate.

While all of these effects are possible, for them to be relevant to the question of whether the natural rate of unemployment changed in the late 1970s, there must have been changes in the unemployment-benefit program. Indeed, during the Whitlam Labour government period, benefits rose relative to earnings. In late 1972, a married man with spouse could have received benefits of about 26 percent of average weekly earnings. (See Appendix Table A-3). By 1977, this ratio had reached 39 percent. Replacement ratios would be higher for workers with below-average earnings.

#### iv. Youth Unemployment

There has been special interest in the impact of unemployment benefits on the labor-market behavior of teenagers, especially young school leavers. Youth unemployment rates rose relative to adult male rates after the mid-1970s recession. Young people are eligible for unemployment benefits, even if they have no prior work experience, since the unemployment-benefit scheme does not require a past history of work. Lower rates of benefits are available, however, to recipients under 18 years of age. The ratio of junior benefits to average weekly earnings for juniors rose from 16 percent for males (18 percent for females) to 36 percent in late 1976 (37 percent for females). Thereafter - apparently out of concern about the effect on teenage workforce behavior - the benefit payment was frozen at A\$36, although the adult rate continued to be adjusted upward. By early 1981, the ratio of junior benefits to earnings fell to 21 percent for males and 23 percent for females. In addition, changes were made in the implicit "tax" on partial earnings to avoid discouragement of part-time work opportunities.



Despite these concerns, econometric studies of the effect of unemployment benefits on workforce behavior of teenagers (or the workforce as a whole) have failed to find substantial impacts, although some studies have found an effect on younger males.<sup>24</sup> Yet the matter needs more careful review. First, there is an unexplained increase in workforce participation of teenagers after 1974. Wages for this group were pushed up by the arbitration system relative to other workers, which could have led to an increase in labor supply. One study suggests that the increase in junior-to-adult wage ratios did have an adverse effect on youth employment prospects, especially for girls who experienced both the junior-to-adult and female-to-male relative wage adjustment.<sup>25</sup>

Second, Australian youngsters drop out of school at substantially younger ages than their counterparts in the U.S. and several other countries. In Australia in the mid 1970s, about 37 percent of 17 year olds were enrolled in school compared with 85 percent in the U.S. and 69 percent in Canada.<sup>26</sup> It has been argued that Australian secondary schools are excessively focused on advancement to university and fail to provide vocational training.<sup>27</sup> Moreover, a recent study suggests that the return to higher education in Australia has been falling.<sup>28</sup> Efforts to reform the system have been made, but have played to mixed reviews.<sup>29</sup> However, even if educational credentials simply provide a better place in the queue for job opportunities - and no actual increase in productivity - it would still pay to stay in school, particularly as the queue lengthened.<sup>30</sup> Thus, it is difficult to understand the failure of the enrollment rate in schools to increase more than it has, especially in the case of males whose enrollment rate stagnated in the mid 1970s.<sup>31</sup>

Third, for the workforce as a whole, there was an increase in the interaction between those counted as unemployed and those receiving unemployment benefits. In 1970, the ratio of recipients to those recorded as unemployed

was only 14 percent. This ratio increased after 1971 dramatically. By 1981, the ratio had reached 79 percent. A possible (partial) explanation of this increase is that duration of unemployment increased, so that a larger fraction of the unemployed passed the waiting period for benefits. This - combined with the increased value of benefits - made more people eligible and made it more worthwhile to apply. Unemployment benefits seem now to be much more a part of the unemployment "experience" than they were when payments were much lower. (See Appendix Table A-4.)

#### v. Macro-economic Policy

While the issue of unemployment benefits is of interest for particular groups, such as teenagers and marginal school leavers, it does not seem to be a likely candidate to explain the upward shift in the unemployment rate from the late 1960s to the late 1970s and early 1980s. The behavior of the employment-to-population ratio shown on Table 2b - an index less subject to the vagaries of the definition of unemployment or tendencies to exhibit unemployment behavior to claim welfare benefits - suggests a fall-off in tightness of the labor market. This ratio rose until 1974 when it peaked at over 61 percent. It then drifted downward settling at about 58 percent. This suggests that macro-economic policy, rather than changes in social policy or the composition of the workforce, was at the root of the unemployment problem. Moreover, the relative lack of success in bringing down the inflation rate after the 1974-75 peak of 15.1 percent (measured by the consumer price index) to anything like the 2-4 percent range of the 1960s suggests that inflation-fighting was the major impetus behind restrictive macro-economic policy.<sup>32</sup>

## vi. Training and Job Creation

The macro-economic explanation has implications for employment and training policies which might be, or have been, adopted to deal with the overall unemployment problem. If the root of the unemployment problem is primarily macro-economic, then programs which address micro-level inefficiencies in the labor market are unlikely to have any substantial effect. With the sharp rise in unemployment in 1974-75 came a proliferation of job creation, training, and vocational programs, often aimed at young people whose unemployment rate rose especially rapidly.<sup>33</sup>

While aspects of the labor-market behavior of young people are not well understood, it is likely that the root cause of much of their unemployment is simply that entry-level workers tend to be at the back of the hiring queue. Training programs and employment subsidization programs are more likely to re-arrange the order of the queue rather than to lower the overall rate of unemployment. Some programs, however, may pull trainees out of the active labor market for a time and possibly lower the unemployment rate through that channel. However, to have a substantial effect, these programs would have to be enlarged considerably.

In 1980-81, for example, there were about 97,000 admissions into various federal employment and training programs. The duration of these programs for enrollees was less than half a year. Hence, generous estimate would be that about 40,000 people were involved in these programs at any one time. If it were assumed that all 40,000 came out of the ranks of the unemployed, and that the number of unemployed fell on a one-for-one basis with the number of enrollees, the unemployment rate for 1980-81 would have been about 6.4 percent absent the programs rather than the actual 5.8 percent.<sup>34</sup> In fact, the actual circumstances are likely to produce substantially less than a one-for-one reduction in unemployment. Moreover, at the 1982 "National Economic

Summit Conference," government estimates projected that the unemployment rate would remain close to 10 percent through 1985-86.<sup>35</sup> To reduce such rates even to the levels of the late 1970s would require massive job-creation programs far exceeding anything thus far mounted or contemplated.

Employment and training programs may have sectoral use once the overall employment picture improves, however. The trends spotlighted above away from traditional manufacturing are likely to be accelerated by the increased slackness in the labor market that began in 1982. Reductions in plant capacity that might have occurred more gradually may be moved forward, causing irreversible displacements. Programs which facilitate movement to other industries can assist in labor-market adaptation to such developments. However, in the context of high joblessness, such programs will be mainly queue re-arrangers.

#### IV. The Special Issue of Immigration

Immigration policy in Australia has fluctuated in line with a variety of mixed motivations. For many years before World War II - although Australia seemed to want population growth - it also wanted the "right" sort of immigrant on racial and country-of-origin lines.<sup>36</sup> Tariff policy was justified as a way to raise real wages and attract immigrants in the 1920s.<sup>37</sup> Even today, a positive correlation exists between the degree of protection afforded industries and their use of immigrant labor.<sup>38</sup> By the 1960s, immigration - now shifting towards southern and eastern European sources - functioned as a labor-market policy, relieving the then-shortage of labor suggested by the very low unemployment rates of the period.<sup>39</sup> Immigration accounted for 37 percent of total population growth in the period 1961-65. The percentage rose to 47 percent during 1966-70, the peak of the labor boom. From 1971-75, as the labor-market softened, the ratio fell to 31 percent. For the period

of chronically high unemployment after the mid-1970s recession, 1976-80, it remained at 32 percent.<sup>40</sup>

Government assistance to immigrants shows an even more marked change. In the period 1966-70, 107,000 foreigners per year received government financial assistance for their immigration expenses. This rate fell to 58,000 in 1971-75 and less than 20,000 in 1976-80.<sup>41</sup> It appears that the mix of immigrants changed, too. A larger fraction of immigrants in the 1970s arrived because of "humanitarian" programs such as refugee resettlement and family reunification.<sup>42</sup> Those who entered the workforce in the 1970s now earn higher wages than those who entered in the 1960s, suggesting higher average skill levels.<sup>43</sup>

In the accord between organized labor (the ACTU) and the Labour Party prior to the 1983 elections, immigration policy is mentioned in rather general terms. However, the tone of the statement emphasizes non-labor market types of immigration as the priority for the future and suggests that other types of immigration programs should be reviewed.<sup>44</sup> Clearly, as long as the unemployment rate remains high, government policy is likely to avoid encouraging "economic" immigrants.

## V. Wages and Inflation

Although it has unique labor-market institutions, Australia's major dilemma with respect to the labor market is similar to those of other countries. The determination of wages - in Australia and elsewhere - is intimately bound up with general issues of macro-economic performance. Price inflation has a significant wage component, even in an economy with significant elements of import and export goods in its price level. Similarly, wage determination will inevitably reflect the rate of price inflation. The inter-

relationship between wages and prices - the real wage at any point in time - is closely connected with the determinant of another variable of key macro concern, the level of unemployment.

Much of the discussion, in Australia as elsewhere, has revolved around the question of whether there is a stable inflation/unemployment trade-off, or - more precisely - whether the short-run trade-off that may exist evaporates in the long run. Those who subscribe to the view that the trade-off evaporates in the long run describe the ultimate unemployment rate to which the economy tends to move as the "natural rate." As noted above, one interpretation of this rate is that it is a structural/frictional rate which reflects such influences as the personal characteristics of job seekers. Another view, however, emphasizes the wage-determination process itself. Militant demands for an increase in the real wage can raise the natural rate.

Also important as a longer-term issue is the efficiency of traditional macro-economic policy in coping with inflation. Traditional policies of demand restraint, in all countries, have an initial impact on real output rather than the major target: the inflation rate. If policy operates inefficiently - if the impact falls heavily on real output and only mildly on inflation - a country faces a difficult dilemma. To achieve a given inflation reduction, it must endure a prolonged and costly period of unemployment. Or, if that is too painful, it may not succeed in reducing its inflation rate at all.

To the extent that unemployment reflects such factors as the personal characteristics of job seekers, the remedies are easy to suggest in the abstract but difficult to implement successfully. These are either programs to ease the matching of workers and employers, through such devices as subsidized training, relocation subsidies (for both workers and employers), and so on. Or, alternatively, jobs can be created and targeted for particular

groups. As noted above, such programs have been used in Australia since the mid 1970s recession. However, except for job-creation schemes, such programs assume that the labor market is tight enough to absorb trainees. In the absence of a sufficiently tight labor market, training programs and other forms of subsidies tend to be queue rearrangers. In essence, then Australia needs to achieve a tight enough labor market to make its employment and training policies successful.

Certain social programs could also have an unemployment-raising effect. The question of changes in the Australian unemployment-benefit program has already been discussed. It is unlikely, however, that such programs can explain the degree to which the Australian unemployment rate became stuck at recession levels after the mid 1970s recession ended. Even if a narrow definition of unemployment is used - the unemployment rate of adult, full-time males - it shows the same upward drift as the overall rate. The adult, full-time male rate stood at .9 percent in 1966, .8 percent in 1971, but 2.4 percent in 1976 and 4.2 percent in August 1982. Adult, full-time males are the group most firmly attached to the labor force with the lowest unemployment rate. They are unlikely to have their behavior substantially altered by changes in unemployment benefits.

If the natural rate of unemployment rises for reasons of the wage-determination process itself, however, inventing new training programs or fiddling with unemployment benefits will not address the major causal factor. In fact, in 1983 both the outgoing Liberal government and the incoming Labour government concluded that wage determination was at the heart of the macro-economic dilemma. The rhetoric of the two parties was quite different, of course. But the policy conclusion was similar; both governments opted for a reduction in the level of real wages. Neither party, however, explicitly

addressed the issue of increasing the efficiency of macro-economic policy, although a faction of the Liberal government appeared to want to do so through a move toward "market" wage setting. These issues will be addressed below.

#### i. Real Wages and Unemployment

Table 4 summarizes trends in several macro-economic indicators over two time periods, September 1966-1973 and September 1973-1982. The former dates correspond approximately to the period before Australia's dilemmas of the late 1970s and early 1980s began. In many respects, similar results could be found in many countries. The earlier period is one of (comparatively) low inflation; the latter is characterized by high inflation and general economic sluggishness.

In the earlier period, real wages and productivity rose at the same rate. The ratio of real wages to productivity - an index which Australian economists decorously call "real unit labor costs," but which is really labor's proportionate share of output - was constant.<sup>45</sup> There was, in other words, a stability of the division of income. Such stability does not prevent inflation; however, attempts to push up the shares of wage and nonwage incomes simultaneously can be inflationary unless halted by either demand restraint or some form of incomes policy.

The second period of Table 4 shows a different situation with regard to the shares. Real wages rose faster than productivity, i.e., real unit labor costs (or labor's relative share) increased. There are really two alternative hypotheses about these results. One is that labor's relative share increased because the government depressed demand deliberately; labor's share tends to rise during periods of recession. The other is that a real wage push - and subsequent pressure to keep real wages "too" high - led the government to keep the economy in a greater degree of slackness than existed in



Table 4

Nonfarm Productivity and Related Trends, September 1966  
 - September 1982  
 (annual rates of change)

	Sept. 1966 - Sept. 1973 (1)	Sept. 1973 - Sept. 1982 (2)	Sept. 1966 - Sept. 1982 (3)
Productivity <sup>a/</sup>	3.6%	1.9%	2.7%
Labor costs <sup>b/</sup>	9.7	15.1	12.7
Unit labor costs <sup>c/</sup>	5.9	12.9	9.8
Real labor costs <sup>d/</sup>	3.6	2.8	3.1
Real unit labor costs <sup>e/</sup>	0.0	.7	.4
Price inflation <sup>f/</sup>	5.9	12.0	9.3

<sup>a/</sup> Gross nonfarm output at 1979-80 prices per hour worked by nonfarm employees.

<sup>b/</sup> Nonfarm labor compensation (wages, salaries, supplements, payroll taxes) per hour worked.

<sup>c/</sup> Labor costs divided by productivity.

<sup>d/</sup> Labor costs divided by implicit price deflator for gross nonfarm product.

<sup>e/</sup> Unit labor costs divided by implicit price deflator for gross nonfarm product.

<sup>f/</sup> Implicit price deflator for gross nonfarm product.

Source: Data provided to the author by the Department of the Treasury.

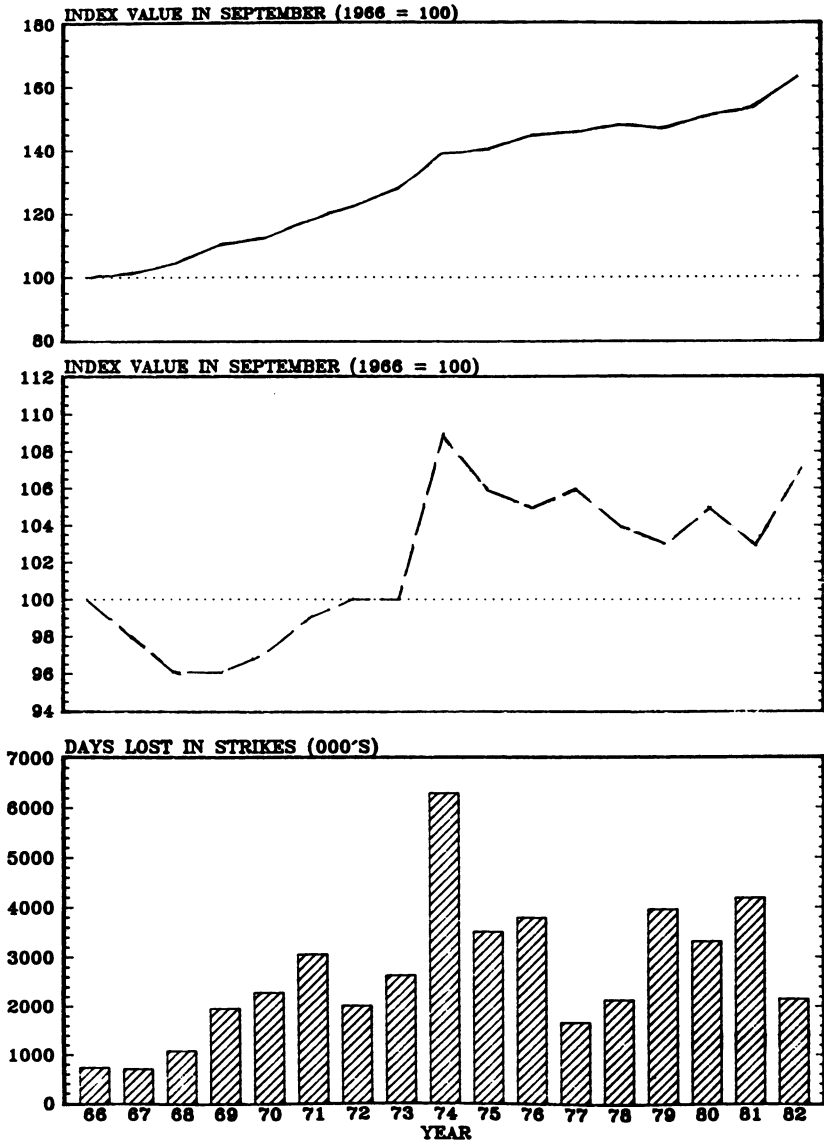
the earlier period. From Table 4 alone it is difficult to come to a conclusion on which hypothesis is valid. But there is other evidence suggesting that the latter view is the correct one.

First, the jump in real wages came suddenly; it was heavily concentrated in 1974, a year in which the Australian unemployment - if one is to believe the studies cited earlier - stood at about its "natural" rate. Second, as can be seen on Figure 1, the jump came at a time of an upsurge in strike activity, a phenomenon suggesting increased labor militancy. Third, soon after the jump demands were made to restore quarterly indexation of arbitration wage awards, a demand which was granted in 1975.<sup>46</sup> This demand suggests a shift toward real wage (rather than nominal wage) bargaining, i.e., a loss of money illusion. Fourth, wage increases were initially encouraged by the 1972-75 Labour government, both increases for special purposes such as raising the female-to-male pay ratio, and general increases to raise labor's share.<sup>47</sup> As inflation rose, of course, the government became concerned and called for restraint. But by then the momentum could not be easily reversed.

Behavior after 1974 is also revealing. There was some reversal of the prior jump in real unit labor costs, but never a return to earlier levels. The economy was permitted to expand, but never returned to full employment. Indexation was continued, in various forms, until 1981; hence, erosion of the level of real unit labor costs that might have occurred depended on productivity improvement. (A fixed real wage and an increasing level of productivity will lower real unit labor costs.) But, productivity growth slowed during this period, probably at least partly in response to the climate of economic slackness.<sup>48</sup>

As concern about the real wage issue mounted, the federal arbitration authorities first shifted to partial indexation (less-than-full price protection), sometimes cloaking the decision with egalitarian clothing, e.g., flat

Figure 1  
Strike Activity and Labor Costs  
INDEX OF REAL LABOR COST      REFERENCE LINE INDEX = 100      INDEX OF REAL UNIT LABOR COST



dollar increases or ceilings on indexed increases. However, increased militancy - as reflected in the strike data - accompanied renewed upward pressure on real wages. And various channels existed for endorsement by the arbitration authorities of above-indexation increases: "anomalies," increases in "work value," etc.<sup>49</sup> In 1981, as settlements outran the official wage determinations, the federal arbitration authorities abandoned "centralized" wage fixing and indexation and awaited guidance from the parties, including government, on how to proceed.<sup>50</sup> In the interim, bargained settlements were the norm. A key settlement in the Metal Trades was endorsed in late 1981 - and then spread to other workers - by the arbitration system. In the Metal Trades and other industries, unions pushed for reduced hours as well as wage increases.<sup>51</sup> In late 1982, the (Liberal) government suggested imposition of a wage "pause," that is no further ratification of settlements, and froze the wages of its own employees. It had made such suggestions since 1976, without success.<sup>52</sup> But 1982's soaring unemployment added strength to the argument.

An interesting issue is why Australian unions did not exercise self restraint, given the experience of the mid 1970s. Various explanations might be offered. First, real wage movements during the mid 1970s triggered macro-economic policies of demand restraint in that period. Hence, it may have been difficult to distinguish the effects of government policy from the effects of wages directly - mainly because the wage effects operated through macro-economic policy reactions.

Second, it is not clear that giving up real wages voluntarily would have been a rational decision. As already noted, unemployment tended to be concentrated among entry-level potential workers, i.e., non-members of the employed workforce and of unions. As a high union official put it in early 1983, "I don't want to sound cynical about this...but while there are 10 percent of workers unemployed, there are 90 percent in employment."<sup>53</sup> As the

U.S. experience has indicated, wage concessions occur voluntarily when core members of the union workforce are displaced, or are in danger of displacement.<sup>54</sup>

#### ii. The Overhang Debate

Australia is no stranger to debate about the effects of real wages. In the early 1930s, for example, federal wage authorities made a deliberate 10 percent real wage cut, in response to the depression.<sup>55</sup> In the early 1950s, the authorities abandoned indexation (which had been in effect since the early 1920s) as potentially inflationary.<sup>56</sup> In the mid 1970s, the debate reopened, this time under the heading of the "real wage overhang." Essentially, the issue in the overhang debate was whether real wages - and particularly the sudden rise in real wages - had something to do with the subsequent increase in the unemployment rate along the lines suggested above.<sup>57</sup>

The real wage overhang debate tended to go off course with discussions about capital/labor substitutions. It is natural for economists to think of such substitutions as a reaction to a change in any relative price. Once substitution becomes the center of the debate, the issue then turns to the empirical significance of the effect. Inherently, in the short run - when it is easiest to make before-and-after comparisons - there is little scope for changing capital-to-labor ratios. The capital stock is large and is incremented only slowly. Once in place, the capital-to-labor ratio of a given plant may be fixed, i.e., locked into the technology of the plant.

A recessionary fall of employment will raise the measured capital-to-labor ratio simply because the numerator stays in place while the denominator drops. While reliable measures of capital are not readily available for Australia, the indexes which are available indicate that the ratio rose in the mid 1970s - probably due mainly to the recession - and that it fell thereafter. (See Appendix Table A-5.) This fall - the opposite of what the sub-

stitution effect would suggest - is most likely the impact of a decline in the general propensity of business to invest in an already-slack economy.

The issue is not one of substitution, nor does it depend on particular theories of pricing behavior. Ultimately, it turns on the adding up of the relative shares of wage and nonwage income. As noted earlier, labor's share and real unit labor costs are equivalent. If real wages rise faster than productivity, labor's relative share will increase. For this to occur, the relative share of nonwage income must necessarily decrease.

Starting from a point at which the shares, which are determined by wage and nonwage claims, are consistent with the exhaustion of total output (income), an upsurge in the real wage must be inflationary. This does not mean that without real wage pressure there will be no inflation. Nominal wages and prices can chase each other in a wage-price spiral at any distribution of income. However, if real claims are asserted which more than exhaust the real income available, accelerating inflation will occur.

In theory, a real wage push can be accommodated by a decline in the non-wage relative share. If it were the case, for example, that empirically the nonwage share in relative terms declined with economic expansion, it would be possible for a real wage push and employment growth to occur simultaneously with no added acceleration of inflation. Unfortunately, however, the empirical tendency is for economic expansion to raise the relative nonwage share. Thus, to prevent accelerating inflation in the face of a real wage push strong enough to raise labor's share, government policy must aim at squeezing the nonwage share.

There are two possible ways in which the nonwage share might be squeezed. Direct intervention, i.e., price controls or guidelines, might be used to depress price markups. In fact, in 1973, a Prices Justification Tribunal (PJT) was established to implement a form of "voluntary" price guidelines for

larger firms. There is some empirical evidence that margins were squeezed by this program.<sup>58</sup> Thus, the prices policy may have accommodated - to a small extent - the increase in the wage share. However, price controls tend to produce shortages if pushed very hard. There was no evidence of shortages during the period when the Prices Justification Tribunal operated (1973-1981); thus, it is improbable that a substantial reduction of the nonwage relative share was effectuated by its efforts.

Since there is likely to be a positive association between economic expansion and the nonwage relative share, the other means - the main means - of reducing the nonwage share is an induced economic contraction. Monetary and fiscal restrictions must be imposed simply to prevent inflation acceleration, if a real wage push sufficient to raise labor's relative share occurs. Moreover, to the extent that real wage pressures are such that at full employment, the sum of the relative shares of labor and nonwage income would exceed 100 percent of available income, the economy must be kept depressed. It is in this way that real wage pressure - acting through monetary and fiscal policy - can raise the natural rate of unemployment. There need be no capital/labor substitutions.

### iii. The Appeal of Incomes Policy

In many countries, real wage push may not be possible, or likely, given their labor-market institutions. Australia's labor-market arrangements, discussed below, do permit real wage push. It is possible for wage claims to be made sufficient to raise the natural rate of unemployment. Faced with this dilemma, the appeal of an incomes policy carried out through a social accord or compact is obvious. The parties need to be confronted with a menu of economic choices available. To the extent that a slack economy is not desired, it may be possible to reduce the level of real wage pressure.

Table 5 summarizes the results of just such an exercise. In early 1983, shortly after taking office, the Hawke Labour government called an economic

Table 5

Summary of Economic Projections Presented to  
April 1983 National Economic Summit Conference

	1982-83	1983-84	1984-85	1985-86	1983-86
Projection A					
Wage inflation (%) <sup>a/</sup>	11.7	5.5	5.3	8.8	6.5
Price inflation (%) <sup>b/</sup>	11.3	6.2	4.9	6.5	5.9
Employment growth (%)	-1.6	.4	2.0	2.7	1.7
Unemployment rate (%)	8.9	10.0	10.1	9.7	9.9
Real GDP growth (%)	-1.4	2.7	3.9	4.8	3.8
Money supply growth (%) <sup>c/</sup>	10.5	8.5	8.25	10.0	8.9
Projection B					
Wage inflation (%) <sup>a/</sup>	11.7	18.1	15.6	15.8	16.5
Price inflation (%) <sup>b/</sup>	11.3	13.0	13.8	13.4	13.4
Employment growth (%)	-1.6	-.4	.2	.8	.2
Unemployment rate (%)	8.9	10.6	11.7	12.2	11.5
Real GDP growth (%)	-1.4	1.7	1.6	2.4	1.9
Money supply growth (%) <sup>c/</sup>	10.5	14.5	15.0	15.0	14.8
Projection C					
Wage inflation (%) <sup>a/</sup>	11.7	2.8	3.0	4.5	3.4
Price inflation (%) <sup>b/</sup>	11.3	5.3	2.0	3.7	3.7
Employment growth (%)	-1.6	.7	2.6	3.3	2.2
Unemployment rate (%)	8.9	9.7	9.5	8.7	9.3
Real GDP growth (%)	-1.4	3.0	4.5	5.3	4.3
Money supply growth (%) <sup>c/</sup>	10.5	8.0	5.75	7.5	7.1

<sup>a/</sup> Average weekly earnings.

<sup>b/</sup> Measured by Consumer Price Index.

<sup>c/</sup> M3.

Source: National Economic Summit Conference, 11-14 April 1983, Documents and Proceedings, Vol. 1, Government Documents (Canberra: Australian Government Publishing Service, 1983), pp.332, 339, 341.



summit conference. The table shows the results of three scenarios of economic outcomes, with C being the least inflationary and featuring a continued wage pause, B being the most inflationary, and A being the government's intermediate and preferred option - an end to the pause with moderate wage increases thereafter.

It is possible from Table 5 to calculate the implied trade-off between real wage growth and unemployment. Option B includes real wage growth over a three year period of 2.7 percent per annum. Option C involves annual real wage growth of -.2 percent. Option B raises the unemployment rate from 1983-84 to 1985-86 by 1.6 percentage points; Option C lowers it by 1 percentage point. In rough terms, comparing the two options it appears that an extra real wage push of about 3 percent raises the unemployment rate by about 2-1/2 percentage points.

Under Option B the real money supply grows at an annual rate of 1.3 percent; under C it grows at a 3 percent rate. Hence, because real wage push is less in C, macro-economic policy is more stimulative. Not surprisingly, the relative share of labor in nonfarm income rises under Option B, but falls under C. Even the intermediate option, A, the Labour government's favored course, provides for a drop in labor's relative share.<sup>59</sup> In effect, the official projections provided to the parties at the summit conference were entirely consistent with a real wage overhang model.

Apart from the menu of choices available to an exercise of incomes policy by social compact, there is the problem of persuasion. The seemingly-unpalatable option B provides real wage growth, net employment growth (although not enough to hold down the unemployment rate), and an expansion of labor's relative share of income. Labor's absolute share grows more rapidly under B than under the other two options.<sup>60</sup> Even though the GDP grows more slowly under B - so that there is relatively less to share - labor's percentage share of a smaller "pie" grows fast enough to more than offset the loss

of overall potential income. In short, it is not obvious why labor should not prefer B to either A or C.

However, the high level of unemployment in all the projections is revealing. It is true that unemployed disproportionately come from groups not likely to have major direct influence on union policy. Nevertheless, as the queue lengthens more and more core union members are threatened. The 10 percent unemployment rate reached in 1983 was remarkable by Australian standards. In the U.S. - where unemployment rates had historically been higher than Australia's over a long period - it was still the case that unemployment in the 10-percent range provoked a dramatic series of union wage freezes and cuts to save jobs. Job security had also become a major issue in Australia by early 1983. As in the U.S., Australian unions pressed state governments to enact legislation aimed at limiting layoffs and plant closings. Greater job security arrangements were also sought through the arbitration system. High unemployment made B an undesirable option, at least in formal conference proceedings.

The issue of incomes policy has long been debated in Australia, even in the halcyon days of the 1960s; the existence of the wage arbitration system makes such debate inevitable since a policy of sorts is always being pursued - even if unconsciously.<sup>61</sup> Prime Minister Hawke - who initiated the 1983 summit conference - wrote an article in the mid 1950s advocating a board dominated by government economists (but with representatives from labor and management) to formulate a wages policy.<sup>62</sup> His proposed board would have displaced the arbitration system for most matters regarding wages.

Much of the debate over the return of indexation in the 1970s involved incomes policy. The argument against indexation - the linkage of wages to prices - was basically that it would lock in the real wage overhang at its peak level. But the counterargument was that by guaranteeing a real wage, a social accord could be negotiated. The acceleration in inflation could be

broken, according to this view, and the rate of inflation would gradually decelerate as productivity increased.<sup>63</sup> Some research suggests that the 1975 return to deceleration did produce reduced wage pressures, but only for a limited time.<sup>64</sup> However, in the 1983 discussion of wages policy, a return to indexation was again advocated as a way of maintaining a social accord.<sup>66</sup>

The incomes policy proposed by the incoming Labour government in 1983 was surrounded with items designed to entice union cooperation, indexation being but one. What has been called "industrial policy" in the U.S. was to be achieved through an Economic Planning Advisory Council which would participate in "broad indicative planning." The Council would include representation from unions and other groups. Other items involved in the accord include taxation policy, social welfare policy, and the re-establishment of a voluntary price surveillance mechanism which would "operate in a less legalistic manner than the former PJT."<sup>67</sup>

Although these programs are quite different than what the former Liberal government would have advocated had it remained in office, there are also some remarkable similarities in the economic policies of the two governments that should also be noted. First, the Labour government continued the wage pause it had inherited. Although this was officially viewed as a temporary measure while awaiting a formal wage decision from the Arbitration Commission, there appeared to be no pressure to urge the Commission to make a quick decision.

Second, high levels of unemployment were promised by the Labour government, even under its recommended Option A. Under Option A, the unemployment rate would still be 9.7 percent in 1985-86 according to the projection presented at the summit conference. Thus, severe economic pressure to live up to the terms of an incomes policy was to be present for an extended period. The move toward demand restraint and higher unemployment was also a policy initiated by the outgoing Liberal government.

Ultimately, the effectiveness of the wages side of the proposed incomes policy depends on the degree to which individual unions can be kept in compliance. With unemployment at record levels, it will never be possible to prove - even if compliance is maintained - whether it was the extreme softness of the labor market, or the terms of the social accord, which produced the results. However, there are elements in the institutional arrangements in Australia which suggest that unemployment alone might not be sufficient. These same elements, however, give reason for concern about the long-term viability of an incomes policy.

#### VI. Improving the Efficiency of Demand Restraint

Since demand restraint is an important element of Australian anti-inflation policy - even with an incomes policy in place - it is important to consider the degree to which wage determination is responsive to such restraint. Even if incomes policy succeeds in lowering the natural rate of unemployment, inflation could continue at previously high levels unless the actual rate of unemployment remains above the natural rate for some period. A crucial issue is, therefore, what the length of such a period is likely to be. Would a short dose of demand restraint be sufficient to scale down inflation quickly? Or would a prolonged, costly, and painful exercise be required?

Put another way, there are really two goals concerning wage determination in Australia. The first is to lower the natural rate of unemployment by addressing elements in the wage-setting process that keep that rate high. The second is to ensure that if inflationary pressures develop, or if the rate of inflation has simply been too high in the past, demand restraint can quickly correct the problem. Incomes policy discussion in Australia has addressed the first issue more fully than the second.

### i. The Effect of Indexation

To some extent, indexation does address the second issue, although it has not been discussed in this fashion. Indexation makes wage setting sensitive (quickly) to price developments. It can have some perverse effects, for example, carrying into wages "exogenous" price shocks from such events as increases in world prices, increases in agricultural prices, and increases in excise taxes. Such increases do not reflect increased "ability to pay" of employers; if they are reflected in wage setting the result is equivalent to an increase in real wage pressures. (Of course, downward adjustments in exogenous price elements can have the reverse effect.) However, to the extent that price markups in the endogenous sector of pricing reflect general economic conditions, i.e., the level of demand, indexation - by conveying these responses quickly into wage setting - enhances the efficiency of demand restraint.<sup>68</sup>

In short, apart from the argument that indexation may help achieve a social compact, there may also be a case for indexation on the grounds that it strengthens traditional demand-restraint policy. Two main considerations must be weighed. First, the perverse effects of external (positive) price shocks may overpower the reinforcement of demand restraint. In principle, this problem can be surmounted by using an "adjusted" price index, i.e., an index which takes account of pricing only in the nonfarm, domestic sector, and which omits taxation effects. It is difficult, however, to win acceptance of such an index since it does not necessarily reflect movements in worker purchasing power because of the omissions. Indexation in Australia is historically rooted in the arbitration system; private wage indexation agreements do not seem to exist. And the arbitration system developed indexation as a means of protecting minimum living standards.<sup>69</sup>

Second, even if the potential problems of a purchasing-power index (such as the traditional Consumer Price Index) are neglected, it matters a great deal at what base level real wages are protected. Indexing in the 1970s was introduced at the peak of a wage explosion; had it been introduced much earlier as part of an incomes policy, it is conceivable that the real wage overhang dilemma might have been averted.

ii. Greater Reliance on "The Market"

During the period of Liberal Party rule (1975-83), there appeared to be two opposing factions in economic thought with regard to wage determination. One group, which ultimately emerged as the dominant voice as signified by the wage pause of 1982-83, advocated use of the arbitration system to promote wage restraint. The other favored scrapping the system - or at least downgrading it - in favor of "market" wage determination. This latter approach, often identified as the "Treasury view," was usually kept muted in public discourse.<sup>70</sup> Public opinion tends to favor the arbitration system - 61 percent of those polled favored arbitration over private collective bargaining for setting wages (including 73 percent of Liberal Party voters).<sup>71</sup> An attempt to fiddle with the arbitration system brought down a government in the 1920s, a lesson politicians and government officials are not prone to forget.<sup>72</sup> Hence, it is difficult to find clearcut public statements of the Treasury position.

To some extent, the Treasury view was concerned with relative wages and the possible effects of rigid wage differentials on resource allocation. However, to the degree that the concern was over movements in average wage levels, there is an obvious connection with the effectiveness of demand restraint. Hence, the question is what would be the method of wage determination if the arbitration system were eclipsed. In particular, would wages

under some successor system show greater sensitivity to demand restraint than is the case under arbitration?

One possibility is that the successor system would be some form of collective bargaining. Bargaining tends to become popular when the arbitration system's wage awards fall well behind the rate of inflation. For example, during the late 1960s and early 1970s, bargaining became a prominent form of wage determination.<sup>73</sup> There is nothing illegal about bargaining per se in Australia. Particularly in larger firms with multinational connections, there is knowledge about how bargaining is conducted abroad which can be imported into Australia. When the arbitration system "caught up" with bargained wages and introduced indexation in the mid 1970s, private bargaining eroded.<sup>74</sup> But it arose again in the early 1980s when indexation was abandoned.

It is not clear, however, that deliberately restraining the arbitration system - so that bargaining became more prominent - would produce an environment in which aggregate wage determination would show greater sensitivity to demand restraint than is the case with arbitration. If the American example is any guide, collective bargaining does not resemble the auction-style labor markets of the textbooks. If Australia followed the U.S. example, it would find itself with long-term union-management contracts, but covering a much larger fraction of the workforce than is the case in the U.S. Such contracts would be unlikely to exhibit substantial wage sensitivity to demand.<sup>75</sup>

Still another alternative approach would be a move away from both arbitration and collective bargaining. The Liberal government during various points in its administration after 1975 introduced bills to amend the complex laws regulating industrial relations, in particular those laws regulating union security, i.e., compulsory union membership. These moves were mirrored

to some extent at the state level, especially in Western Australia.<sup>76</sup> There were various motivations behind the proposals for changes in labor law, but one effect might have been a contraction of the union sector. For example, one survey in Western Australia indicated that as many as one-third of union members and former union members reported that they were (or had been) members on an involuntary basis.<sup>77</sup>

Even if union membership were to drop substantially to American levels, and if the arbitration system were made to disappear, it is not at all clear that the resulting degree of wage sensitivity to demand restraint would be markedly different. A heavily nonunion labor market - as exists in the U.S. - is still far removed from idealized auction wage setting. Indeed, in the late 1970s and early 1980s, there developed in the U.S. a considerable literature on "implicit contracting" in the labor market. In essence, this literature purports to explain wage stickiness in nonunion firms - where no contract is available to explain it - on the theory that an implicit contract exists between employer and employee which has much the same effect as an explicit contract. Regardless of the validity of the explanations offered in the implicit contracting literature, the empirical fact remains: wage stickiness seems to exist regardless of institutional arrangements.<sup>78</sup> A move to the "market" might not change the slope of Australia's "Phillips curve," although it might shift its location.

### iii. The Australian Wage Equation

In the 1960s, economists in many countries began to make econometric investigations of the determinants of wage change. The original Phillips curve paper for British wage setting found the level of unemployment to be an important determinant for the rate of wage inflation over a long period.<sup>79</sup> Subsequent national studies - especially those covering the postwar era - ad-



ded other variables as candidates for explanatory variables such as the rate of price inflation, productivity, profitability, etc.

The original Phillips specification suggested a long-term trade-off between wage inflation and unemployment. But subsequent researchers, initially on theoretical grounds, questioned whether a trade-off in the long run could exist. In essence they argued that a long-run trade-off suggested that the real wage could be permanently reduced by an increase in the inflation rate, thus expanding employment and reducing unemployment. However, if wages were ultimately determined in real terms, the trade-off - which might exist in the short run due to lags in perceiving or catching up with inflation - would evaporate.

In Australia, with its long history of debate over, and periodic implementation of, wage indexation to price inflation, the existence of a long-term trade-off is certainly suspect. The principle actors in the wage-determination process give evidence of awareness of the need to "correct" nominal wage decisions for subsequent movements in prices. This is not to say that decisions to curtail real wages are never made; the wage pause of 1982, the partial indexation decisions of the late 1970s, and the wage cut in the early 1930s are all examples of such decisions. The point is, however, that such decisions are made consciously, not because of money illusion.

There is a substantial wage-equation literature for Australia. Some studies take account of the arbitration system explicitly. Award wages are distinguished from actual earnings in the estimation process.<sup>80</sup> Wage award decisions are usually seen as inputs into the determination of actual wage change. There are obvious problems if award wages are viewed as totally exogenous decisions, however, except in short-run forecasting exercises.<sup>81</sup> Nevertheless, there is a history in the Australian literature of viewing shifts in the actual wage/award wage differential as reflecting demand pres-

tures.<sup>82</sup> Given the easily-observed association between strike activity and wage change in the mid 1970s, it is not surprising that some researchers include strike data as indexes of union militancy in modeling wage change.<sup>83</sup> However, there is evidence of a positive association between strike activity and wage change that long predates the 1970s.<sup>84</sup>

Most studies find a role for demand or unemployment as an explanatory variable.<sup>85</sup> However, beginning with a paper by Parkin in the early 1970s, the issue has been whether demand variables play only a short-term role, or whether there is a long-run, Phillips curve type trade-off.<sup>86</sup> The evidence seems consistent with a short-run, but not a long-run, trade-off. However, such a conclusion does not necessarily mean that there is a rigidly-fixed natural rate of unemployment. Some researchers find evidence of a shifting natural rate. As was noted earlier, the natural rate could shift due to changes in wage-setting institutions themselves. At least one study suggests that the natural rate was higher after indexation returned in the mid 1970s than before, a result that might have been expected due to the locking in of the previous effects of the wage explosion.<sup>87</sup> Still another suggests that award wage increases can adversely affect employment levels and squeeze profits.<sup>88</sup>

There has been only limited work on wage-equation comparisons between Australia and other countries. The only way to make comparisons on a consistent basis is to run the same regression equation across a group of countries, all of which have their own institutional arrangements and data peculiarities. One study which did this used a particular specification in which the unemployment rate was assumed to influence the change of wage inflation rather than the rate of change of wages.<sup>89</sup> In this specification, wage setting in Australia seemed more sensitive to unemployment than either British or American wage setting, but markedly less sensitive than in certain countries, notably Japan.

Another study suggested that the price sensitivity of wage setting in Australia and the U.K. rose relative to the U.S. in the late 1970s at a time when exogenous price inflation was especially influential. This relative shift, in turn, provided a reason for a comparatively worse case of "stagflation" in Australia and the U.K. than in the U.S.<sup>90</sup> However, differing specifications of the wage equations were used for the three countries, complicating the comparisons.

#### iv. Limited Lessons from Empirical Studies

Unfortunately, the wage-equation literature for Australia - extensive though it is - does not provide as much guidance for policy as its volume would suggest. Even if it could be shown that the sensitivity of Australian wage change to demand or unemployment was lower or higher than most other countries, this would say nothing about whether that sensitivity might be changed through a policy modification. Moreover, the standard for comparison is poor. Most countries have faced macro-economic problems similar to Australia's. Thus, being slightly ahead of, or behind, the pack does not indicate whether improvements should be sought. It would be better to have a lower natural rate of unemployment than a higher one and it would be better to have more short-term sensitivity of wage change to real economic conditions than to have less. The issue is whether policies can be suggested and implemented that could make it so. Put another way, most countries are not happy with their wage equations, regardless of where they stand in the international pecking order. Australia is no exception, and is clearly looking for an improvement.

An additional issue is the wage-equation studies themselves. A simple wage equation explaining earnings change with lagged price inflation and unemployment does not produce very encouraging statistical results for Australia.<sup>91</sup> The fact that published studies tend to obtain "good" results,

often with more complex specifications, suggests that a "searching" process was used to find the best equations. Even if combined with some testing for accuracy of prediction outside the estimation period, the searching approach raises questions about the significance of the coefficients and their interpretation.

What we know about Australian wage determination in recent years can largely be derived from institutional knowledge and an "eyeballing" of available data. Wage setters "think" in real terms; the expression of this is in the debates over indexation. From time to time, there are shifts in union militancy which affect the real wages which are obtained. The causes of these shifts are not well understood, especially the shift which occurred in the late 1960s and early 1970s. Strike activity is apparently influenced by real economic conditions, but the shift in that period seemed to go beyond what could easily be explained by unemployment rates and the like.<sup>92</sup> It is possible that the buildup in militancy was related to the slippage in real unit labor costs (labor's relative share) in the late 1960s; one model suggests that inflation - and catch up with inflation - may play a role in strike activity.<sup>93</sup> However, the level of militancy persisted after the catch-up period.

Casual observation of Australian wage data suggests something like a short-run Phillips curve, but with a rightward shift in the 1970s.<sup>94</sup> The wage bubble of the mid 1970s was followed by high unemployment by Australian standards and a slippage in real unit labor costs. However, as the unemployment rate came down - although it remained absolutely high - wage pressures resumed in the early 1980s. But in 1982-83, with a sharp surge in unemployment, the pressures subsided to the point that a wage pause could be implemented.

## v. Steps to Steepen the Short-Term Trade-Off

Australia would be better off with a steeper short-run trade-off between wage change and unemployment (or some other real demand proxy). However, Australian wage-fixing discussion tends to focus more on inflation as an obvious input into wage decisions than on other relevant factors. The debate over indexation referred only to indexation to the Consumer Price Index, not to other measures of economic conditions. Yet, other measures might be considered.

The idea that inflation is not the only variable to which wages might be indexed is not new. Alternative arrangements were advocated as early as 1925 in the Australian context.<sup>95</sup> At the enterprise level, a small number of firms do have such alternative indexation in the form of profit sharing or other forms of gain sharing. Such arrangements do not appear to be a recent innovation in Australia. Some of the plans go back to the 1940s.<sup>96</sup> Yet relatively few Australian workers are covered by such arrangements. They are often seen as a form of executive compensation only.<sup>97</sup>

To the extent that Australian employers think of employee participation in the economic gains of their enterprises, they are more likely to create some form of employee stock ownership plan. Often the motivation for such programs is to improve morale - by encouraging employee identification with the employer - or to "teach" the employee about the realities of the marketplace. Whatever may be the merits of such ideas, they fail in a critical respect.

The creation of more shareholders - even if they be employees - does not make labor costs more sensitive to demand conditions. Hence, it will not affect firm pricing behavior. Only in the limiting case where workers own the entire enterprise, and hence where is no practical distinction between wages and profits, does share ownership have the desired macro-economic effect. There are some limited examples of worker ownership in Australia. But

the enterprises involved tend to be small and again only a small fraction of the workforce is covered by such arrangements.<sup>98</sup>

If gain-sharing plans were to become widespread in Australia, there would be important macro-economic benefits in the form of increased effectiveness of macro-economic demand restraint. While each enterprise's gain-sharing arrangement would reflect the conditions within that enterprise, the general ups and downs of the economy would be an important influence on the average firm's situation. Labor costs would thus reflect general economic conditions on average, thus helping to steepen the short-run Phillips curve. It has been argued, for example, that the Japanese bonus system - a form of gain sharing - helps explain that country's steeper Phillips curve and avoidance of stagflation.<sup>99</sup>

Since the benefits from such an arrangement are largely at the level of the overall society, there would have to be a policy of deliberate encouragement by public policy to make gain sharing a significant element of Australian wage determination. However, some barriers would have to be overcome. First, the Australian labor movement is officially unenthusiastic about profit sharing and similar arrangements on the grounds that they "are merely guises for improving the return to owners and consolidating the powers of management elites."<sup>100</sup> Second, such programs would have to mesh with the system of multi-employer wage awards through the arbitration system since if implemented on an employer level basis, they would provide different compensation levels for workers covered by common awards.

Third, small employers might lack the sophistication - or the willingness to make the necessary data available - to implement such plans. And fourth, public opinion - at least on the basis of survey questions - seems to eschew profitability as a wage-setting criterion. Eighty percent of respondents in a 1981 poll thought that workers should receive the same wage

across industries even in the face of significant variation in industry profitability levels.<sup>101</sup>

While all of these barriers would have to be overcome to make gain sharing more widespread in Australia, their existence should not close the issue. The need to address the scope of the compensation package - apart from the simple wage element - in arbitration awards and bargaining is a theme which will be discussed further below. However, even if the barriers to changing the structure of compensation at the micro level proved insurmountable, a form of national gain sharing could be implemented.

The Commonwealth Arbitration Commission has broad discretion in determining the relevant criteria for establishing the national wage decision which filters into wage awards throughout the labor market. Just as it can index to price inflation if it chooses to do so, the Commission could index to other relevant economic measures such as overall profitability, actual to potential output, unemployment, etc. In effect, the Commission can write a desired Phillips curve slope into its awards.

It is worth noting that gain sharing, whether implemented at the micro or macro levels, can be made part of an overall package of "industrial democracy," a concept with appeal to the ACTU. There is a logic in giving workers who participate in the financial fortunes of their employers a voice in the decisions that contribute - in part - to those fortunes (or misfortunes). Similarly, there is a logic, if workers are given a voice in decisions, in also giving them participation in the fruits (sweet or bitter) of those decisions. Dressed in the right clothing, gain sharing might be a more attractive approach than the initial union skepticism would make it appear.

## VII. Wage Determination and the Industrial Relations System

Australia's unique industrial relations arrangements have been the subject of continual international attention, and only a brief summary of the highlights can be attempted here. However, the center of attention, because of its uniqueness, is the system of compulsory arbitration of wage disputes. In principle, industrial disputes are to be settled by a quasi-judicial process through federal, state, or - in certain cases - industry tribunals. Strikes are theoretically banned, but penalties for striking have not been enforced since the late 1960s. The arbitration system sets minimum wages and other conditions of employment for all occupations. However, nothing prevents the negotiation of higher wages or better conditions through private bargaining.

Private bargaining can occur entirely outside the arbitration system. There are a few examples of American-style contracts with fixed durations, grievance and arbitration mechanisms, etc. in certain industries.<sup>102</sup> Such unregistered agreements have ambiguous legal status, much akin to the legal standing of union contracts in the U.S. prior to the passage of the Taft-Hartley Act of 1947. Agreements may be given firmer legal status by "registering" them with the appropriate authorities or obtaining consent awards. In the latter case, the arbitration authorities essentially "bless" the terms of the agreement by incorporating them into an official arbitration award, thus making them the binding minimum standard for all employers covered by the award.

Although industrial relations matters occupy a key place in Australian politics and economic policy - far more so than in the U.S. - there is a distressing lack of data on the frequency of industrial relations practices. There appears to be no ongoing collection of information on the contents of arbitration awards - other than indexes of wage rates. Even there, the data



do not distinguish between decisions which have been reached wholly through the arbitration process, those which have been reached privately and then endorsed by the authorities, and those reached entirely outside the system - either by bargaining or through purely unilateral decisions of employers. Only limited information is available on the incidence and cost of fringe benefits.

The need for a more comprehensive information system in Australia cannot be stressed too heavily, particularly given the propensity of Australian governments to amend the basic labor law on a frequent basis. It has been amended over 60 times since originally enacted in 1904.<sup>103</sup> By way of contrast, the American Wagner Act, the heart of labor relations regulation in the U.S., has been significantly amended five times since its original enactment in 1935, and only two of these amendments constituted really substantial change.<sup>104</sup>

Available data do make clear the comprehensiveness of the arbitration system. Table 6 indicates that in 1974, only 12 percent of the paid workforce was truly nonunion in the American sense of being unrepresented by any organization and having wages set by unilateral employer decision. On the other hand, less than 1 percent bargained American-style, totally outside the arbitration system. Eighty-seven percent were covered by either federal or state arbitration awards.

The year 1974 - when the data of Table 6 were collected - was generally viewed as a period in which bargaining had previously been the dominant mode of wage setting and in which the arbitration authorities were trying to have their wage decisions catch up with "market" levels.<sup>105</sup> Two years later, a similar survey found that the truly nonunion sector had dropped from 12 percent to 10 percent.<sup>106</sup> Hence, the issue of the impact of arbitration decisions does not turn on the coverage of those awards, which is always compre-

Table 6

Percentage of Employees Covered by Arbitration  
Awards or Unregistered Collective Bargaining Agreements, May 1974

	Federal Awards (1)	State Awards (2)	Unregistered Agreements (3)	Not Covered by Awards or Agreements (4)	Total (5)
All wage and salary earners	39.2%	47.8%	.9%	12.2%	100.0%
Males	43.7	40.6	1.1	14.6	100.0
Females	30.2	62.0	.5	7.3	100.0
Manufacturing	53.6	32.7	.8	12.9	100.0
Nonmanufacturing	32.6	54.6	.9	11.9	100.0
Public Administration	20.7	73.1	1.0	5.2	100.0

Source: Australian Bureau of Statistics, Incidence of Industrial Awards, Determinations and Collective Agreements, May 1974, reference no. 6.5, November 14, 1975.

hensive. Rather it turns on the degree to which the awards are influencing actual wages paid.

#### i. The Arbitration Framework

Table 6 shows that a larger proportion of those covered by arbitration awards are under state, rather than federal, tribunals. State arbitration dates back before passage of the basic federal statute establishing what is now the Australian Conciliation and Arbitration Commission. In certain respects, state tribunals have - or can be given - broader authority than the Commission due to constitutional limitations placed on the federal government. Nonetheless, in matters of national wage trends, the Commission is considered the prime agent in the system.

National wage decisions are imitated by state and industry tribunals. For example, the Metal Trade Award of late 1981 provided for an initial adjustment in February 1982 and a second adjustment in July 1982. A study tracking the speed with which the second adjustment spread to other awards - the Metal Trades Case has often served as pattern-setting settlement - found that 79 percent of workers under "major" awards and 65 percent of workers under small awards had received comparable adjustments by August 1982.<sup>107</sup>

In essence, the arbitration process is triggered by a "dispute." However, dispute need not mean an actual strike; it may simply mean that a union has served claims on an employer or - more likely - employers and that the claims have not been accepted. The process by which the dispute is resolved - a hearing with union and management advocates presenting their respective positions - is often viewed by Australian industrial relations experts as excessively legalistic.<sup>108</sup>

It is said that the centralization and legalism of the process tends to undermine private settlement of disputes. The lack of private relationships, in turn, is further said to limit plant and shop level resolution of what in

the U.S. would be minor grievances.<sup>109</sup> In essence, Australia has "nationalized" a portion of the personnel and industrial relations department of each employer, but not all of it, leaving the remaining part - the part which might deal with local issues - in a poor position to handle its responsibilities. It is also said that short strikes are triggered simply to obtain the quick attention of the tribunals to cases which might otherwise sit in the queue.<sup>110</sup> In American discussions of compulsory arbitration, it is not uncommon for the author to point to the incidence of strikes in Australia, the moral being that banning strikes and providing for arbitration as an alternative neither prevents strikes, nor produces a particularly good strike record.<sup>111</sup>

There is something to be said for these accusations, but the arguments can easily be overstated. Table 7 compares the Australian strike record during 1972-81 - a period including the unrest of the early and mid 1970s - with three other English-speaking countries. In terms of numbers of strike per year, Australia seems to have the worst record, although differences in national definitions of a strike significantly affect the figures. Australian union members seem to be far more prone than their foreign counterparts to participate in strike actions. The Australian ratio of strikers to union members was 48 percent in an average year during the period shown, compared with substantially lower ratios in the other three countries.

However, at that point the unfavorable comparison ceases. On the basis of days lost per striker, the Australian average of 2.5 days puts it well below the averages in the comparison nations. And, in terms of days lost per employee, or - what may be a more relevant measure of the climate of industrial relations - days lost per union member, the Australian record appears comparable to the U.S. and U.K. records and somewhat better than Canada's.

Table 7

Mean Strike Indicators for Period 1972-81  
in Four Countries

Strike Indicator	Australia	Canada	U.K.	U.S.
(1) Number of Disputes <sup>a/</sup>	2,388.5	974	2,251	4,813
(2) Number of Strikers (000s)	1,347	558	1,553	1,875
(3) Days lost in disputes (000s)	3,351	8,166	12,040	33,762
(4) Civilian Employment (millions)	6.0	9.6	24.4	91.5
(5) Union members (millions) <sup>b/</sup>	2.8	3.1	12.5 <sup>c/</sup>	22.6
(6) Strikers/Dispute [(2)/(1)]	56	573	69	389
(7) Strikers as percent of total employees [(2)/(4)]	22.6%	5.8%	6.4%	2.0%
(8) Strikers as percent of union members [(2)/(5)]	48.1%	18.0%	12.4%	8.3%
(9) Days lost/strikers [(3)/(2)]	2.5	14.6	7.8	18.0
(10) Days lost/employee [(3)/(4)]	.6	.8	.5	.4
(11) Days lost/union member [(3)/(5)]	1.2	2.6	1.0	1.5

<sup>a/</sup> For U.S., excludes disputes lasting less than 1 day or shift; for U.K., excludes strikes of 1 day or of less than 10 workers, unless they involve more than 100 man-days; for Canada and Australia, excludes strikes of less than 10 man-days.

<sup>b/</sup> Mean of 1976 and 1977 figures.

<sup>c/</sup> Adjusted to exclude members in Ireland and other areas outside the U.K.

Source: Data on strikes and employment from International Labour Office, Yearbook of Labour Statistics, 1982 (Geneva: ILO, 1982), Table 3A, 28A; Data on union membership from Great Britain, Central Statistical Office, Annual Abstract of Statistics, 1982 (London: HMSO, 1982), p.185; Labour Canada, Directory of Labour Organisations in Canada, 1980 (Hull, Quebec: Canadian Government Publishing Centre, 1980); David Plowman, Australian Trade Union Statistics, unpublished working paper, Department of Industrial Relations, University of New South Wales, no date; U.S. Bureau of Labor Statistics, press release USDL 81-446, September 18, 1981.

It appears that while Australia has not eliminated strikes, it has succeeded in changing the form of those strikes which do occur. The incidence of long, bruising strikes is reduced, at the cost of more frequent, minor disruptions. However, the inability to improve local level industrial relations and grievance handling and the fact that fixed-term American style guarantees of no-strike are comparatively rare is symptomatic of a problem in the current approach to arbitration that needs correcting. In principle, nothing prevents the parties from addressing these issues, e.g., creating grievance processes, agreeing not to push further claims for fixed periods, etc. But the compartmentalization of the current system acts as an inhibiting force.

Arrangements such as grievance and (private) arbitration systems, fixed-duration contracts with no-strike clauses, and other features commonly found in U.S. labor-management agreements developed from a series of trade-offs. What American unions want initially from an employer is recognition. Even after winning a representation election, effective recognition does not really occur until a contract is signed. Unions, in short, have strong motivation to obtain a written agreement.

But if management is to sign an agreement, it also has certain objectives. Since strikes are costly and disruptive, it wants a guarantee of fixed periods of labor peace, i.e., a contract with definite duration and a no-strike clause. In turn, if a union is to sign such a contract, it needs some method for handling the complaints of its members that will inevitably arise during the contract's life. It wants a dispute settling mechanism - a grievance and arbitration clause - to be included in the contract. The process is one of give and take. Something is offered in exchange for something else.

As presently practiced, the Australian arbitration system simply grants certain claims and considers others in isolated fashion. In essence, unions achieve recognition by establishing a recognized jurisdiction. The recognition effectively comes from the arbitration system, not the employer. Once achieved, the union's jurisdiction is protected from encroachments of other unions. A union so recognized can then submit claims against employers, even employers in which it has no members. The eventual wage award will cover all employers recognized as coming within the defined jurisdiction. There is little incentive in this process to establish an ongoing, detailed relationship between union and employer.

While compartmentalization poses a problem for improving day-to-day industrial relations, it also has implications for the overall wage-determination process. Cases which involve clear trade-offs nevertheless come before the arbitration system as separate issues. For example, during the summer of 1983, the ACTU pursued two separate cases before the Conciliation and Arbitration Commission. One case was the national wage case, the advocating of a wage increase to follow the end of the wage pause. The other was an employment security case - filed separately and heard separately.

There is an obvious connection between these cases. First, to the extent that providing employment security imposes costs on employers, and benefits to workers, the costs need to be considered in granting an overall wage increase. Employment security can be viewed as a fringe benefit; if more is given in fringes, less can be given in wages. Second, and more important, the provision of employment security is related to the form the compensation adjustment takes.

The weekly payroll of an employer, or - for that matter - the economy as a whole, can be expressed as the product of three variables: wages per hour (W), hours per week (H), and the number of employees (E). Left to their own

devices, employers deal with up and down shifts in demand by varying H first (raising or lowering overtime or possibly going to short workweeks). However, the scope for varying the payroll through H alone is limited. Typically, the next step is to vary E (new hires or layoffs). Only as a last resort is W varied. This insulation of W from economic conditions poses a key dilemma for macro-economic policy.

Adding a gain-sharing element to the wage-setting system is a way of introducing variability in W. Typically, the variation is in a bonus rather than the straight-time hourly wage, but the effect is much the same. Hence, an obvious trade-off for less variability in E - the target of the employment security case - is more variation in W, an issue which could be addressed in the wage case. Isolating the two cases both limits the opportunity for compromise and the scope for improving macro-economic performance.

#### ii. Unions and Employers

Observers of the industrial relations scene in Australia generally comment on two outstanding characteristics of the union movement. First, there are many unions, given the small size of the labor force. Table 8 shows that there were over 300 unions in Australia in 1982. Second, the rate of unionization is quite high, 57 percent of wage and salary earners belonged to unions in 1982. One factor in this high rate is the arbitration system; the various tribunals can give "preference awards" under which employers must give preference to union members in hiring. Even so, assuming that the ratio of coverage by arbitration awards is still about 9 out of 10 wage and salary workers, roughly a third of these employees are covered by awards initiated by union claims, but are not themselves union members.

There seems to be a strong consensus that there are "too many" unions and that mergers between unions should be encouraged.<sup>112</sup> However, due to concerns about the formation of a large, left-wing union through merger, the



Table 8

## Union Membership Data, 1891-1981

Year	Number of Unions (1)	Number of Union Members (000s) (2)	Union Members as Percent of Total Employment		
			Males (3)	Females (4)	Total (5)
1891	124	54.8	n.a.	n.a.	4%
1901	198	97.2	n.a.	n.a.	6
1911	573	364.7	n.a.	n.a.	28
1921	382	703.0	58%	32%	52
1931	361	740.8	47	35	45
1941	374	1075.6	53	39	50
1951	359	1690.2	66	42	60
1961	355	1894.6	63	41	57
1971	341	2436.6	59	39	52
1981	324	2994.1	60	48	56
1982	322	3012.4	62	49	57

Source: David Plowman, Australian Trade Union Statistics, Department of Industrial Relations, University of New South Wales, undated working paper; 1981 data from Australian Bureau of Statistics, Trade Union Statistics, Australia, December 1982, cat. no. 6323.0, June 24, 1982; D. Plowman, S. Deery, and C. Fisher, Australian Industrial Relations (Sydney: McGraw-Hill Book Co., 1980), p.192 (Note: Membership from this last source appears to refer erroneously to males only for recent years.)

process of merging was hindered by legislation enacted in 1972.<sup>113</sup> In their pre-election accord in early 1983, the ACTU and the Labour Party pledged to remove this legal barrier to mergers.<sup>114</sup>

But it is not clear what the "optimum" numbers of unions should be. If the U.S. had the same ratio of unions to members as prevails in Australia, there would be well over 2,000 unions in the U.S. Roughly a tenth that number report to the U.S. Bureau of Labor Statistics. However, these estimates do not count many small local independent unions, single-firm unions, and municipal employee associations which would raise the count considerably. Moreover, U.S. national unions are divided into locals which exercise varying degrees of autonomy; in some industries such as construction, bargaining is carried out at the local level. There were roughly 50,000 locals in the U.S. in the mid 1970s.<sup>115</sup> Thus, it is extremely difficult to make a relative comparison of the number of "unions" in the two countries.

In any case, the concern about union size in Australia is much more about the structure of union representation than about numbers of unions. Because of the workings of the arbitration system, the existing jurisdictions and the existing union institutions are perpetuated along craft lines, since craft unionism was the dominant mode when the system came into being at the turn of the century. Craft unionism means that firms will often deal with several unions in an atmosphere which breeds inter-union rivalry, competition, instability of industrial relations, and wage pressures.

For incomes policy in particular, the craft structure of unionization poses special problems. The craft form of unionization crosses industry lines, so that wage breakthroughs in one sector can easily spread to others. An incomes policy built on a coordinated "hold the line" approach can easily be imperiled by the structure of unionism.

It is more difficult to obtain information on employer characteristics, but it appears that there are also a large number of employer groups, mirroring their union counterparts. Eighty-one employer groups were registered with the federal arbitration authorities in 1980. At the state arbitration level, there were 296 registered in New South Wales, 74 in Queensland, 9 in South Australia, and 14 in Western Australia.<sup>116</sup> (Tasmania and Victoria have no procedure for registration.)

There are some offsets, in any case, to the large numbers of unions and employers. At the national level, the ACTU plays a much more active role in wage determination - by representing the union case before the Arbitration Commission - than, say, the AFL-CIO would play in the U.S. Most union members are in organizations affiliated with the ACTU, especially after several important white-collar organizations joined the fold in the early 1980s. This merger put into the ACTU one of the fastest growing segments of union membership of the previous decade. Similarly, by virtue of its role in national wage cases on behalf of employers, the Confederation of Australian Industry plays a substantial role in wage determination which has no counterpart in the U.S. Hence, on both sides, there is diversity at the bottom but significant authority at the top. This authority is helpful to the operation of a centralized incomes policy.

There is also diversity in size on both the union and employer side that limits the number of significant "players." Forty-seven percent of unions had memberships of less than 1,000 persons in December 1982. But only about 3 percent of all union members belonged to these organizations. At the same time, 4 percent of the unions had memberships of over 50,000 persons, and these contained about 45 percent of all union members.<sup>117</sup>

Data on firm size are less readily available. However, in manufacturing, 48 percent of all firms had workforces of less than ten employees, but

accounted for less than 6 percent of total employment in 1980-81. On the other hand, less than 2 percent of manufacturing firms had over 500 employees and accounted for almost fifty percent of manufacturing employment. In 1981, moreover, the 20 largest employers in all sectors accounted for over 12 percent of wage and salary employment. Large firms pay higher average wages than small and it is likely that they are "leaders" in other aspects of personnel management and labor relations.<sup>118</sup>

### iii. Politics and Industrial Relations

Politics in Australian industrial relations can have various connotations. To some, it means the detailed analysis of the various - often left-wing - factions within the trade union movement. The ideological element within unions can lead to fascinating internecine conflict,<sup>119</sup> but - in recent years anyway - the impact of the ideological component on ongoing industrial relations has been limited. Where it occurs, it has taken such unusual turns as "green bans" in Sydney - in which union members refused to participate in construction projects in certain historical areas, controversy over the export of uranium, and similar issues.<sup>120</sup> On occasions there have been strikes over government policy - such as a protest in 1976 regarding changes in Medicare - often with only limited success.<sup>121</sup>

There is another meaning of politics: the interaction with the electoral process, with government policy makers, and with government agencies. The ACTU, and most of its constituent unions, are affiliated with the Australian Labour Party. When the Labour Party is in office, the union movement expects to be "consulted" and expects a favorable legislative climate. While it is difficult to quantify, some observers believe that the Labour Government of the early 1970s played a part in the reversal of the prior downward drift in the unionization rate shown on Table 8.<sup>122</sup>

The interplay between the ACTU and the government (even when the Labour Party is not in office), and between the ACTU and the Arbitration Commission, creates a need for a professional staff, and gives the staff significant status.<sup>123</sup> For example, Prime Minister Hawke rose through the staff ranks to reach the presidency of the ACTU; at one time he held the post of ACTU advocate before the Arbitration Commission. The authority of professionals in a rank-and-file movement can create internal tensions. Nevertheless, in a period of incomes policy there is a need for individuals who can interact with government policy makers. It is not surprising, therefore, that union professionals have been anxious to have a successful incomes policy under a Labour government. This attitude helps explain the accord in 1983 - centered on an incomes policy - between the ACTU and the Labour Party.

The position of employers in the political arena has certain differences, and certain similarities, to the union position. Employer organizations are not typically affiliated with political parties. But they have an obvious interest in influencing legislation, having a voice in economic policy, etc. As in the union case, the need to interact with government and with the arbitration system creates a need for professional staff and elevates the importance of the major organizations. Employer representation is essential to an incomes policy. Hence, the Labour government must "woo" the key employer groups if it is to create a social accord.

#### VIII. Can There Be an Incomes Policy?

The existence of a centralized wage arbitration system has long suggested to some observers that Australia has a ready-made incomes policy, or at least the institutions to implement one. Moreover, there appears to be significant support for the arbitration system itself. Unions receive various protections from the system. They do not need to worry about achieving em-

ployer recognition. Preference awards help maintain and boost membership. And, as long as they do not excessively expand their overaward margins, wages are taken out of competition. Employer organizations have grown up largely to mirror unions within the arbitration mechanism; thus, they too are dependent on the system for their existence. And, of course, the functionaries who operate the system prefer the current arrangements. Thus, it might be supposed that if the system were used to implement an incomes policy, it could withstand the inevitable tensions such a policy entails.

But there are two major issues which must be considered in evaluating the prospects of a successful incomes policy. First, the system provides for minimum awards; there is nothing illegal about a payment above the official scale. Hence, the arbitration system is not a wage-control mechanism. And constitutional limitations rule out wage ceilings - except during wartime - at least at the federal level. The presence of overaward payments raises the question of whether the arbitration system is "really" influencing wages at all. If wages are largely determined apart from the system, then an incomes policy which affects only official wage rates may have form rather than substance.

Second, there is the use of the principle of "comparative wage justice" in setting arbitrated wages. This principle causes wage decisions to spread from award to award on grounds of equity. Thus, incomes policy can be upset if any significant group succeeds in violating the policy; once a violation occurs there will be pressures for imitation throughout the workforce. Australians generally assume that the demand for comparative wage justice emanates from social mores which in turn are reflected in arbitration decisions. In fact, it may be that these pressures emanate from the arbitration system itself, and are transmitted into social mores, a point which will be taken up below.

### 1. Does the Arbitration System Affect Wages?

It is always appealing for academics to be able to debunk widely-held beliefs. The ordinary Australian believes that the arbitration process sets wages. He or she reads in the newspapers about wage decisions and the drama which surrounds them. What could be more enticing for an academic than to be able to prove that all of this interplay is merely a show which produces what the "market" would anyway?

It is true that in Australia, as elsewhere in the world, bank presidents earn more than ditch diggers, more-educated people earn more than the less educated, large firms pay more than small firms, and so on. In that sense, the arbitration system does not change anything. However, it will be argued below that Australian wage structure has been affected by the arbitration system.

Consider, first, wage awards themselves. Do the awards look like decisions that a market process would produce? Table 9 compares the dispersions of wage-rate awards in Australia, expressed as annualized percentage rates of change, for 15 industries with comparable data for market-produced earnings changes in the U.S. The period covered is December 1969-December 1980. As can be clearly seen, Australian award decisions are substantially more uniform than occurs in the marketplace of a country without an arbitration mechanism.<sup>124</sup>

It is generally thought that Australian award decisions tend to compress the wage structure on ground of equity, a protection of the weak at the bottom of the wage ladder. If "market" forces tend to work against this effect, there is both a lesson and a question. The lesson is that the award wage decisions are "opposing" the forces of the market. The question is whether the market succeeds in completely offsetting the compression effect.

Table 10 presents detailed occupational data on award wages and over-award premiums for workers in the metal trades. The occupations are ranked

Table 9

Variation in Wage Change, 15 Industry Sectors,  
Dec. 1969 - Dec. 1980, Australia and United States

	Dec. 1969 - Dec. 1974 (1)	Dec. 1974 - Dec. 1980	Dec. 1969 Dec. 1980
Variation in award wages for adult males, Australia <sup>a/</sup>	.04 (.04)	.08 (.08)	.04 (.04)
Variations in average earnings, U.S. <sup>a/</sup>	.16 (.15)	.15 (.14)	.13 (.12)

<sup>a/</sup> Standard deviation of rate of wage adjustment divided by mean of wage adjustment.

Note: Figure in parentheses uses simple mean of the 15 industries as denominator rather than mean of economy-wide adjustment.

Source: Appendix Tables A-9 and A-10.



Table 10

Award Wages and Overaward Premiums,  
Early 1982

Occupation	Victoria		All Australia	
	Award Wage (1)	Overaward Premium (2)	Award Wage (3)	Overaward Premium (4)
Process worker - female	A\$211.30	5.8%	A\$217.00	7.6%
Machinist - 3rd class	225.30	10.3	225.20	9.5
Welder - 3rd class	231.20	14.1	231.60	14.2
Process worker - male	232.30	14.4	232.10	13.7
Sheetmetal worker - 2nd class	248.40	13.5	251.90	14.0
Other - nontradesmen	252.10	22.9	241.40	17.0
Machinist - 2nd class	253.60	15.3	254.70	14.9
Welder - 2nd class	264.20	23.1	256.80	20.4
Machinist - 1st class	285.20	15.0	285.40	14.5
Sheetmetal worker - 1st class	295.30	17.9	292.00	16.5
Other tradesmen	299.80	19.1	303.40	19.6
Motor mechanic	300.80	19.4	286.10	14.8
Fitter	303.30	20.1	300.50	18.8
Toolmaker	307.80	16.3	306.80	15.6
Tradesmen's assistant	312.60	34.9	270.90	24.4
Boilermaker	322.40	24.8	305.50	20.2
Welder	343.00	29.3	313.80	22.3
Rigger	400.10	43.5	350.00	34.8

Source: Amalgamated Metal Workers and Shipwrights' Union, National Wages and Conditions Survey, June, 1982, p.7.

on the table by their level of award pay in the State of Victoria. While the effect is not uniform, there is a clearcut tendency for the overaward premium to be higher in percentage terms at higher pay levels. That is, it appears that award wages are more compressed in distribution than the market would provide, and overaward payments tend to offset the effect. But do they offset it altogether?

Because Table 10 suggests that overaward payments tend to offset award compression, comparisons of earnings across countries are instructive. Thus, it can be asked whether the Australian wage structure - based on actual earnings rather than award rates - shows signs of compression. On Table 11 comparisons are made of earnings dispersion in Australia and the U.S. for eleven industries.<sup>125</sup> The period covered is 1969-80.

Columns (1) and (2) of Table 11 suggest that interindustry wage dispersion is narrower in Australia than in the U.S. Moreover, the pattern of change over time in the two countries is instructive. Dispersion in Australia widens during the early 1970s, a period when collective bargaining was in sway. Thereafter, when the arbitration authorities decide to catch up and regain control, the dispersion stabilizes. It appears that when bargaining occurs, the dispersion of interindustry wages widens - although not to U.S. levels since the arbitration system puts a floor on the lower tier of wages. When arbitration regains authority, the wage distribution is "fixed" at existing levels and held there. The numbers mirror the folklore of what occurred; it is unlikely that this concurrence is mere coincidence.

Since industry comparisons pose risks, due to incompatibility of industry definitions, it is useful to consider an alternative measure of wage dispersion and compression. Table 12 compares the ratio of the first quartile of the earnings distribution to the median based on surveys of full-time workers in Australia and the U.S. in various years. A higher ratio means a

Table 11

Changes in Wage Structure in U.S. and  
Australia, 1969-1980

Year	Dispersion <sup>a/</sup> Based on Actual Earnings, Structure	
	U.S. (1)	Australia (2)
1969	.19	.09
1970	.20	.10
1971	.21	.14
1972	.22	.14
1973	.22	.13
1974	.22	.13
1975	.21	.14
1976	.22	.14
1977	.22	.14
1978	.22	.15
1979	.22	.15
1980	.22	.16

<sup>a/</sup> Standard deviation divided by mean for 11 industries.

Source: Calculated from data in International Labour  
Office Yearbook of Labour Statistics and other  
sources.

Table 12

Distribution of Weekly Earnings of Full-Time  
Workers, U.S. and Australia, 1970-81

Ratio of First Quartile of Earnings  
Distribution to Median

Year	Males		Females	
	Australia (1)	U.S. (2)	Australia (3)	U.S. (4)
1970	n.a.	75%	n.a.	n.a.
1975	83%	70	78%	76%
1977	82	66 <sup>a/</sup>	82	76 <sup>a/</sup>
1979	81	67 <sup>a/</sup>	81	73 <sup>a/</sup>
1980	82	n.a.	80	n.a.
1981	81	n.a.	80	n.a.

<sup>a/</sup> Refers to actual earnings. Previous U.S. figures refer to usual earnings.

Note: Quartile determined by interpolation of available data.

Source: Yearbook Australia 1982, p.162; similar tables from 1981, 1976-77, and 1975-76 Yearbooks; U.S. Bureau of Labor Statistics, Labor Force Statistics Derived from the Current Population Survey: A Databook, bulletin 2096 (Washington: GPO, 1982), Vol. I, p.728; U.S. Bureau of the Census, Wage and Salary Data from the Income Development Survey Program: 1979 Special Studies, Series P-23, No. 118 (Washington: GPO, 1982), Table 1.

narrower gap between those on the bottom of the wage distribution and those in the middle, i.e., compression from below. The Australian ratios are consistently higher than the comparable U.S. figures. In short, it appears that the arbitration system succeeds in compressing the wage distribution, even in the face of overaward pay.

Obviously, many objections could be raised to those comparisons. There are factors other than the arbitration system which might account for relative compression in Australia. And there are countries other than the U.S. with which comparisons might be made. However, probably the most striking piece of evidence that the arbitration system "matters" is to be found in purely Australian data. And that is in the movements of female-to-male wage differentials.

Columns (3) and (4) of Table 13 show, respectively, the ratio of female-to-male wages based on minimum award wage rates and average hourly earnings for the period 1970-1981. During the early part of this period, the Arbitration Commission implemented its equal pay and equal value decisions. (See above.) On the basis of minimum award wage rates, the ratio rises from 74 percent in 1970 to 94 percent in 1976, after the decisions were fully implemented. On the basis of actual hourly earnings, the ratio rose from 65 to 85 percent over the same period. Since occupational structure cannot change dramatically in the space of a few years, it must be concluded that these dramatic changes reflected the will of the Arbitration Commission.

The first two columns of the table show that while the Commission was pushing up female official wages relative to male, the ratio of actual to official rates changed considerably. As has been previously noted, during the early 1970s, arbitrated wages fell behind actual wages, a situation which the Commission moved to correct in 1975. These changes are reflected on Table 13. However, the table suggests that the Arbitration Commission - though it

Table 13

Ratios of Average Hourly Earnings to Hourly Minimum  
Wages and of Female-to-Male Earnings, 1970-81<sup>a/</sup>

Year	Ratio of Hourly Earnings to Minimum Hourly Rates <sup>b/</sup>		Ratio of Adult Female to Adult Male Hourly Wages	
	Adult Males (1)	Adult Females (2)	Minimum Rates (3)	Hourly Earnings <sup>b/</sup> (4)
1970	1.40	1.23	.74	.65
1971	1.40	1.24	.75	.66
1972	1.46	1.38	.78	.74
1973	1.50	1.43	.80	.76
1974	1.55	1.44	.86	.80
1975	1.45	1.32	.92	.84
1976	1.44	1.31	.94	.85
1977	1.44	1.31	.94	.86
1978	1.43	1.33	.94	.87
1979	1.44	1.33	.93	.86
1980	1.48	1.37	.93	.86
1981	1.43	1.32	.94	.86

<sup>a/</sup> Non-agricultural activities.

<sup>b/</sup> Earnings are as of October and relate to non-managerial employees.

Source: International Labour Office, Yearbook of Labour Statistics, various issues.

controlled only official rates - was able to influence actual rates, even during a period when the two drifted apart.

It appears, therefore, that those who argue that the arbitration system does not produce wage structures different from what market forces would otherwise produce, overstate their case.<sup>126</sup> The system does have noticeable effects and this has important implications for incomes policy. An arbitration system that was merely a show would be an unlikely candidate to implement a wages policy. The essence of an incomes policy, as applied in the labor market, is to make wages behave in a manner different than they otherwise would. Having the ability to affect wages is a necessary, but not sufficient, condition for the Arbitration Commission to function as an incomes policy instrument.

ii. Can the Arbitration System Impose Wage Restraint?

The evidence cited above suggests that the arbitration system can push wages up. It can compress the wage structure by pushing up the wages of those on the bottom, it can push up female wages relative to male, and - as noted earlier in this chapter - it can push up youth wages relative to adult. The key question is whether it can hold wages down. Legally, of course, it cannot, since overaward pay is permitted. So the question is really whether by implementing anti-inflationary policies over award wages, it will be able to exercise a restraining influence over actual pay.

It appears that in the very short run, a decision with regard to restraint of award rates will affect actual rates. After the wage pause was implemented in early 1983, the average rate of wage increase slowed markedly. Ordinary-time earnings for full-time workers rose at an annual rate of 4.9 percent during the first quarter of 1983 - a period only partly affected by the pause - down from 16.6 percent the previous year.<sup>127</sup> But such an impact says little about the longer-term outlook.

The record of the late 1960s and early 1970s suggests that in the face of significant demand pressures, wage restraint of award rates will tend to be overwhelmed. In such an environment, the arbitration authorities will eventually feel compelled to set their own wages more "realistically," i.e., closer to actual levels. However, such problems do not appear likely to re-occur through the mid 1980s, given the government's projections of high unemployment. The question is really whether some autonomous element of wage push might enter the system - along the lines of the mid 1970s experience - and what might be done through the Arbitration Commission to prevent it.

Without some mechanism to provide for wage restraint, the Arbitration Commission is unlikely to want to be the central element of an incomes policy. Various approaches might be offered to create a climate of restraint. For example, there has been some discussion in Australia of implementing a "tax-based incomes policy" or TIP.<sup>128</sup> Under the TIP proposal - and there are many variants - those who exercise restraint either receive a tax subsidy of some type, or avoid a tax penalty. In the U.S., the TIP idea received substantial attention in the 1970s and was even offered to Congress (and rejected) in the form of a scheme known as "real wage insurance."<sup>129</sup>

The difficulty with TIP is its complexity in implementation. Difficult questions arise concerning the costing of wage adjustments - which must be done precisely if subsidies or penalties are to be handed out. The presence of non-wage compensation, promotions, merit increases, etc., must all be dealt with in detail. Questions of equity arise for individuals who change jobs, for new firms, and for individuals who receive larger (or smaller) increases than the average in their unit. At first blush, it might seem that Australia - which already has a detailed wage-setting mechanism - might adapt its arbitration machinery to deal with such problems. However, the arbitra-



tion tribunals are not equipped for such tasks. They are essentially courts, not administrative and enforcement agencies.

Rather than the TIP approach, the incoming Labour government decided to implement an incomes policy - using the Arbitration Commission as the central wage mechanism - supported by a social compact. It appears to be an approach worth trying in the Australian context. By late 1982, Australia was suffering from both severe unemployment and inflation. There appeared to be support for far-reaching action in the labor movement and an attitude in the employer community ranging from acquiescence to a willingness to experiment. Moreover, as expressed in its projections presented to participants in the National Economic Summit Conference, government policy was not going to be strongly stimulative; there seemed little prospect of an incomes policy crumbling in the face of excess demand.

A social compact, of course, depends on the delivery by government of a variety of items not directly related to wages. Most prominent of these - from the viewpoint of the ACTU - are proposals related to taxation, social welfare policy, and a mechanism for industrial policy. Not all of these items may be deliverable, or deliverable in precisely the form promised. And all will take time. A key question is the degree of labor cooperation that will be forthcoming in the event that elements of the package turn out to be non-deliverable, or non-deliverable within a reasonable time frame.

### iii. The Need for a Safety Valve

The economic policy for the new Labour program centered around the social accord and incomes policy. It assumed that the accord would "work" as planned. There appeared, however, to be little contingency planning for the possibility that the plan would not work, i.e., that the incomes policy would break down. In an area as uncertain as incomes policy, the consideration of such a contingency is important and obvious.

An incomes policy typically breaks down when a visible group succeeds in violating the rules, i.e., receiving more than is allowed by the guidelines, regulations, or whatever. Discussions of wage determination in Australia typically put much weight on "comparative wage justice," a principle that in essence means that traditional wage relationships should be preserved.<sup>130</sup> If great weight is put on comparative wage justice, a wage increase to one group - even if it violates the rules of an incomes policy - justifies similar increases for other groups. A minor break in the dam can quickly become a torrent under such arrangements.

While it is true in Australia - as elsewhere - that notions of equal pay for equal work, treating everyone "the same," etc. are generally supported by public opinion and the rhetoric of the labor market, it is not clear that such ideas are inherently more firmly rooted in the Australian social fabric than they are in other countries. It is clear, however, that the arbitration system reinforces such notions. Like other courts, arbitration tribunals rely heavily on precedent. This is not simply a matter of equity in the case of wage courts, however. Setting wages for 9 out of 10 employees in the workforce is a big job, even in a small country. Taking a follow-the-leader approach is a matter of administrative convenience; it cuts the effective workload to manageable proportions.

The American experience with wage controls during World War II, the Korean War, and the Vietnam War is instructive. As in Australia, there is a certain amount of inherent pattern following in U.S. wage determination. When controls were in effect, however, these patterns became enshrined - and reinforced - in regulations. "Tandem relationships" became convenient devices for grouping cases together, so that a relatively small number of people - even in the more ambitious programs - could set wages throughout the economy.

Since the Australian wage-setting system reinforces notions of comparative wage justice, it makes incomes policy particularly vulnerable to erosion. One approach to this problem - the approach implicitly taken in the 1983 accord - is to try and ensure that no one succeeds in breaking the rules. But this is difficult to do, particularly in a "voluntary" program with no penalties for violations. What is needed is a "safety valve," so that violations are less obvious and more readily "explained" by special circumstances.

The more complex the settlement, the more difficult it becomes to make coercive comparisons. In the U.S., the growth of fringe benefits - especially benefits whose cost is not easily compared, such as defined-benefit pension plans, health and welfare plans defined in terms of services rather than employer costs, etc. - has helped make comparisons difficult. Fringe benefits have been growing in Australia, but are less common than in the U.S.<sup>131</sup> Where they do exist, they are frequently confined to executives or constructed in a way which makes comparison relatively easy, e.g., defined-contribution superannuation schemes are far more common than defined-benefit pension plans.

Creative differentiation of settlements would be helpful in prolonging the life of incomes policy in Australia, because it blurs comparisons. There is much that the parties could negotiate about other than wages. Job-security guarantees will be of increasing concern to a workforce which has experienced high unemployment. Quality-of-worklife arrangements have received some attention in Australia, but comparatively little implementation. These, too, could be added to the negotiators' menu. The fact that arbitration tribunals have not dealt with such matters in the past does not mean that they will veto new arrangements on which both labor and management have agreed.<sup>132</sup>

Finally, it is in the interest of macro-economic policy that elements of flexible compensation - the gain-sharing arrangements discussed earlier - be encouraged. Gain sharing would make future deflations less painful. It can be presented as an extension of industrial democracy, a variation of indexation, and a route to employment security. Even if an incomes policy eroded, if it left a legacy of gain sharing, it would have made a permanent contribution toward economic stability.

#### IX. Looking Ahead

The issues arising from the labor market in Australia are similar to those of most industrialized countries. Changes are occurring in the industrial and occupational composition of the labor force. These changes will place added stress on the need for innovative approaches by labor, management, and government. An increasingly white-collar workforce can be expected to have different priorities than have traditionally risen from the industrial sector. Since the Australian labor movement has had considerable success in recruiting members in the newer sectors of employment, these priorities can be expected to be expressed both in bargaining and through the arbitration system.

To the extent that the newer and younger members of the workforce have interests in nonwage areas, such as flexible work hours and quality of work-life, their needs can be satisfied only in a climate in which labor and management resolve conflicts at the workplace level. The issue of centralization versus decentralization in Australia has beclouded this fact. For wage determination, with an arbitration system in place, Australia has always had a centralized system. It has oscillated between situations of dominance of the national arbitration authorities to dominance of a few key wage bargains which are subsequently endorsed and spread by the arbitration system. But

the system has always been weak in resolving nonwage, local issues, issues which are necessarily decentralized and not easily dealt with on an across-the-board basis.

It has been estimated that the typical spell of employment for males with a particular employer in Australia is about 15 years.<sup>133</sup> This duration is roughly comparable to the U.S. Employees do not spend their working time in a relationship with the arbitration authorities, but with their employers. Under these circumstances there is good reason to stress improvements in day-to-day industrial relations. The macro-economic need for an incomes policy should not be allowed to interfere with such developments.

There are certain issues which are inherently of national, rather than local, concern. The larger issues of wage determination and inflation clearly fall into this category. So do cases in which existing social welfare policies may be influencing labor-market behavior in undesirable ways. The economic summit conference of 1983 was an encouraging exercise in directing the key parties' attention toward the menu of economic choices available. Incomes policy is a key component of the national accord. But it is likely that if cooperation succeeds in the area of wage determination, it will be possible to reach a consensus on other social issues, too. And, conversely, cooperation in other realms will assist in reinforcing an incomes policy.

Footnotes

1. Gruen argues that the 25 percent across-the-board tariff cuts of 1973 had relatively small effects on employment. F.H. Gruen, "The 25% Tariff Cut; Was it a Mistake?", Australian Quarterly, vol. 47 (June 1975), pp.7-20.
2. Australian estimates from Australian Bureau of Statistics, Year Book Australia 1982, cat. No. 1301.0, p.163; Appendix Table A-1; for the U.S.: U.S. Bureau of Labor Statistics, Earnings and Other Characteristics of Organized Workers, May 1980, bulletin 2105 (Washington: GPO, 1981, p.28.
3. Adam Jamrozik, "Youth Unemployment: A Short-Term Problem and Long-Term Outcomes," unpublished paper presented at seminar of New South Wales Association for Mental Health, July 2, 1983, Social Welfare Research Centre, University of New South Wales, 1983, pp.6-7. Jamrozik argues that the school system is ill-preparing young people for this change in the labor market.
4. For example, the ratio of workers involved in strikes in mining and manufacturing in 1980 per employee was 149%, and 39% respectively. In community services it was 14%. Source: Australian Bureau of Statistics, Labour Statistics 1980, cat. no. 6101.0, pp.19, 107.
5. In a very significant case the High Court of Australia ruled that social workers employed by a social welfare agency were engaged in an "industrial dispute" with their employer. (Australian Social Welfare Union vs. Australian Conciliation and Arbitration Commission, June 9, 1983.) It is widely assumed that other groups, such as teachers, who had been previously excluded from federal arbitration, would now be able to be covered.
6. R.G. Gregory, P. McMahon, and B. Whittingham, "Women in the Labour Force: Trends, Causes and Consequences," unpublished paper for Conference on Trends in Women's Work, Education, and Family Building, June 3, 1983, Department of Economics, Australian National University and Bureau of Labour Market Research, 1983.
7. E.A. Eyland, C.A. Mason, and H.M. Lapsley, "Determinations of Female Employment," Economic Record, vol. 58 (March 1982, pp.11-17.
8. Desley Deacon, "The Employment of Women in the Commonwealth Public Service: The Creation and Reproduction of a Dual Labour Market," Australian Journal of Public Administration, vol. 41 (September 1982), pp.232-250; Sandra Eccles, "The Role of Women in the Australian Labour Market: A Survey of the Literature," Journal of Industrial Relations, vol. 24 (September 1982), pp.315-336, especially pp. 324-326.
9. Martin Rein, "Women and Work - The Incomplete Revolution," Australian Economic Review (3:1980), p.14.
10. Year Book Australia 1982, p.142.

11. "The Sex Problem that has no Place in the Workplace," The Age, October 21, 1982, p.11.
12. For example, the Metal Trades Award of 1982 provides specifically for a Board of Reference to establish limitations on work "unsuitable" for females. This award is viewed as a major, pattern-setting decision in the arbitration system. Metal Trades (Australian Capital Territory) Award, 1982, Australian Conciliation and Arbitration Commission, October 13, 1982, p.7. On protective laws, see H.B. Connell, "Special Protective Legislation and Equality of Employment Opportunity for Women in Australia," International Labour Review, vol. 119 (March-April 1980), pp.199-216. Implementation of federal EEO legislation in the U.S. led to the voiding of such state protective legislation. In Australia, constitutional constraints prevent federal supremacy in this area. See Organization for Economic Co-operation and Development, Manpower Policy in Australia (Paris: OCED, 1975), pp.84-85. On existing Australian EEO legislation see Rhonda Dredge and Lynne Conway, "Aspects of Equal Employment Opportunity in Australia - Part 1," Work and People, vol. 6 (1980), pp.3-11, and Part 2, Work and People, vol. 7 (1981), pp.17-22.
13. B.D. Haig, "Sex Discrimination in the Reward for Skills and Experience in the Australian Labour Force," Economic Record, vol. 58 (March 1982), pp.1-10.
14. See Bureau of National Affairs, Inc., The Comparable Worth Issue (Washington: BNA, 1981).
15. J. Nieuwenhuysen and J. Hicks, "Equal Pay for Women in Australia and New Zealand" in Barrie O. Pettman, ed., Equal Pay for Women: Progress and Problems in Seven Countries (Washington: Hemisphere Publishing Corp., 1977), pp.63-83.
16. See Table 13, below.
17. These data are reviewed in Gregory, McMahon, and Whittingham, "Women in the Labour Force", op.cit. Employment ratios are as of August.
18. Sandra Eccles, "Female Employment: Real and Apparent Gains," Australian Bulletin of Labour, vol. 6 (June 1980), pp.172-185.
19. R.G. Gregory and R.C. Duncan, "Segmented Labor Market Theories and the Australian Experience of Equal Pay for Women," Journal of Post Keynesian Economics, vol. 3 (Spring 1981), pp.403-428.
20. Assistance to the aged rose from under 2 percent of GDP in 1971-72 to over 3 percent by 1975-76. Other payments which might encourage early withdrawal from the labor force - assistance to veterans, handicapped, a disabled persons - also increased. See Adam Jamrozik, "Ageing and Income Support" in Adam Graycar, ed., Age Care - Whose Responsibility?, proceedings of a symposium held March 10, 1982, Social Welfare Research Centre, University of New South Wales, pp.13-28.

21. Michael Parkin, "The Short-Run and Long-Run Trade-Offs Between Inflation and Unemployment in Australia," Australian Economic Papers, vol. 12 (December 1973), pp.127-144, puts the natural rate at 1-1/2 to 2 percent. In a subsequent paper, written after the mid-1970s wage explosion, he ups the estimate slightly to 2-1/2 percent. See Michael Parkin, "Yet Another Look at Australian Short-Run and Long-Run Trade-Offs Between Inflation and Unemployment," Australian Economic Papers, vol. 15 (June 1976), pp.128-139. Other estimates in the 1-1/2 to 3 percent range can be found in Michael G. Kirby, "An Investigation of the Specification and Stability of the Australian Aggregate Wage Equation," Economic Record, vol. 57 (March 1981), pp.35-46; B. Bhaskara Rao, "Inflationary and Efficiency Effects of Relative Wage Distortions: The Australian Case," Australian Economic Papers, vol. 19 (June 1980), pp.68-77.
22. George L. Perry, "Changing Labor Markets and Inflation," Brookings Papers on Economic Activity (3:1970), pp.411-441.
23. Data for the calculation are drawn from appendix Table A-2.
24. See R.G. Gregory and P.R. Patterson, "The Impact of Unemployment Benefit Payments on the Level and Composition of Unemployment in Australia," Discussion paper no. 11, Centre for Economic Policy Research, Australian National University, July 1980; P.J. McMahon and V. Ramasamy, "Factors Contributing to Youth Unemployment in Australia," Economic Analysis and Policy, vol. 10 (March/September 1980), pp.87-103; R.G. Gregory and R.C. Duncan, "High Teenage Unemployment: The Role of Atypical Labour Supply Behaviour," Economic Record, vol. 56 (December 1980), pp.316-330; P.J. McMahon and C. Robinson, "A Comparison of the Factors Contributing to Unemployment in Australia," conference paper series no. 4, Bureau of Labour Market Research, August 1981.
25. Bureau of Labour Market Research, Youth Wages, Employment and the Labour Force, research report no. 3 (Canberra: Australian Government Publishing Service, 1983).
26. J.R. Niland, "Who Gets What Job: The Changing Job Rules in Ownership and Control of Labour Market Activities," unpublished paper, Department of Industrial Relations, University of New South Wales, paper given at Sixth World Congress of the International Industrial Relations Association, Kyoto, Japan, March 27-31, 1983, p.7.
27. Organisation for Economic Co-operation and Development, Manpower Policy in Australia, op. cit., pp.8-9.
28. Richard B. Freeman, "The Changing Economic Value of Higher Education in Developed Countries: A Report to the O.E.C.D.," working paper no. 820, National Bureau of Economic Research, December 1981, pp.4-15.
29. Jamrozik, "Youth Unemployment," op. cit., p.11, Greg Sheridan, "Buck-Passing on Campus: The New Realities," The Bulletin, February 22, 1982, pp.68-72.



30. One observer argues that such credentials are in fact being used by Australian employers simply as a rationing device. See John Niland, "Education, Work, and Industrial Relations," The Australian Quarterly, vol. 49 (March 1977), pp. 63-73.
31. Bureau of Labour Market Research, Youth Wages, Employment and the Labour Force, op. cit., p.93. See also Gregory, McMahon, and Whittingham, "Women in the Labour Force," op. cit., p.35a.
32. Peter Sheehan, "Unemployment: Policies and Prospects" in Bettina Cass, ed., Unemployment: Causes, Consequences, and Policy Implications, proceedings of a seminar held on June 19, 1981, Social Welfare Research Centre, University of New South Wales, August 1981, p.16.
33. A review of these programs can be found in J.R. Niland, "Special Labour Market Adjustment Measures in Australia," Department of Industrial Relations, University of New South Wales, unpublished paper, undated (1981?).
34. Data taken from National Economic Summit Conference, 11-14 April 1983, Documents and Proceedings, Vol. 1, Government Documents (Canberra: Australian Government Publishing Service, 1983), pp.40, 55, 61.
35. See discussion surrounding Table 5, below.
36. In certain respects, U.S. and Australia have similar histories on immigration policy, particularly with regard to restriction of Asian immigrants. Fears that immigrants would undermine wages and job opportunities initially intermingled with racial attitudes to produce a "White Australia" immigration policy. In the postwar period, concerns about the national defense implications of a low population and the press of refugees from Europe led to a less restrictive - but nevertheless tightly controlled - immigration policy. For references, see Andrew Markus, "Divided We Fall: The Chinese and the Melbourne Furniture Trade Union, 1870-1900," Labour History, no vol. May 1974), pp.1-10; Sandra Rennie, "The Factor of National Identity: An Explanation of the Differing Reactions of Australia and the United States to Mass Immigration," Journal of the Royal Australia Historical Society, vol. 68, pt. 2 (September 1982), pp.133-143; Michael Quinlan, "Australian Trade Unions and Postwar Immigration: Attitudes and Responses," Journal of Industrial Relations, vol. 21 (September 1979), pp.265-280.
37. The famous Stolper-Samuelson theorem of international trade theory - demonstrating the tariff could, under certain circumstances, raise real wages - was developed partly in response to policy discussion in Australia. See Wolfgang F. Stolper and Paul A. Samuelson, "Protection and Real Wages," Review of Economic Studies, vol. 9 (November 1941), pp.58-73.
38. Glenn Withers, "Labour Markets in Australia: Implications for ASEAN-Australia Economic Relations," paper for Labour Market Behaviour Workshop, National University of Singapore, July 30-31, 1983, Research School of the Social Sciences, Australian National University 1983, Figure 2.

39. Organisation for Economic Co-operation and Development, Manpower Policy in Australia, op. cit., pp.77-80.
40. Year Book Australia 1982, op. cit., p.87.
41. Year Book Australia 1982, op. cit., p.113.
42. See Norman W.F. Fisher, "Immigration and the Labour Market," conference paper series no. 7, Bureau of Labour Market Research, address to the Tasmanian Branch of the Economic Society of Australia and New Zealand, July 32, 1980.
43. In August 1981, mean weekly full-time wages of male immigrants who arrived during 1961-70 were \$270. The comparable figures for those who arrived in 1971-75 and 1976-81 were \$283 and \$286. The respective figures for females were \$206 versus \$219 and \$214. As might be expected, immigrants from eastern and southern Europe earned substantially less than those from English-speaking countries including New Zealand. Source: Australian Bureau of Statistics, Weekly Earnings of Employees (Distribution), Australia, August 1981, cat. no. 6310.0, pp.16, 20-21.
44. National Economic Summit Conference, op. cit., p.419.
45. Unit labor costs can be defined as  $WL/Q$  where  $W$  = cost of labor compensation per unit of time,  $L$  = number of time units of labor, and  $Q$  = output. This measure is equivalent to the ratio of wages ( $W$ ) to productivity ( $Q/L$ ). If unit labor costs are deflated by a price index  $P$ , the result is  $WL/PQ$ , i.e., the wage bill divided by the total value of output or labor's relative share of output.
46. David H. Plowman, Wage Indexation: A Study of Australian Wage Issues, 1975-1980 (Sydney: George Allen and Unwin, 1981), pp.73-97.
47. F.H.G. Gruen, "What Went Wrong? Some Personal Reflections on Economic Policies Under Labor," Australian Quarterly, vol. 48 (December 1976), p.23, notes that the symptoms of increased labor militancy were already present when the Labour government took office, but believes that the wage policies of the new government contributed to the explosion. See also P.A. Riach and G.M. Richards, "The Lessons of the Cameron Experiment," Australian Economic Papers, vol. 18 (June 1979), p.21.
48. Productivity and economic growth tended to slow throughout the industrialized world after 1973. See Patricia Capdevielle et al, "International Trends in Productivity and Labor Costs," Monthly Labor Review, vol. 105 (December 1982), p.4. Unfortunately, there appear to have been no analytical studies dissecting the productivity slowdown in Australia. Some observers attribute part of the worldwide slowdown to the generally more-restrictive demand policies followed in various countries to counter inflation. See Michael Bruno, "World Shocks, Macroeconomic Response, and the Productivity Puzzle," National Bureau of Economic Research, unpublished working paper no. 942, 1982. As in the U.S., although with less apparent effect on the overall figures, declines in productivity growth in Australia appear centered in certain non-manufacturing industries such as mining, wholesale and retail trade, and utilities. See National Economic Summit Conference, op. cit., pp.63-68.

49. Plowman, Wage Indexation, op. cit., pp.98-118.
50. Just prior to the abandoning of indexation, for example, the Arbitration Commission refused to endorse a settlement at the government-owned telephone company, Telecom. However, it also said that the employer was morally bound to pay the negotiated amount. See "Wages, Prices and Taxes," Australian Economic Review (2: 1981), p.16. In early 1982, the Commission noted its reluctance "to introduce a new form of wage regulation unless it has a reasonable chance of success." Australian Conciliation and Arbitration Commission, National Wage Case, Melbourne, 14 May 1982, p.50.
51. Australian Conciliation and Arbitration Commission, Metal Industry Award, Melbourne, 18 December 1981.
52. Plowman, Wage Indexation, op. cit., p.137.
53. "All Their Own Work," The Bulletin, February 1, 1983.
54. Daniel J.B. Mitchell, "Recent Union Wage Concessions," Brookings Papers on Economic Activity (1:1982), pp.165-201.
55. A history of the wage policies of the arbitration system can be found in K.J. Hancock, "The First Half Century of Australian Wage Policy," Journal of Industrial Relations, vol. 21 (March and June 1979), article in two parts, pp.1-19, 129-160. See also E.A. Boehm, "Australia's Economic Depression of the 1930s," Economic Record, vol. 49 (December 1973), pp.606-623.
56. A history of the initial implementation of indexation can be found in Colin Forster, "Indexation and the Commonwealth Basic Wage 1907-22," Australian Economic History Review, vol. 20 (September 1980), pp.99-118. On the abandonment of indexation in the 1950s, see Department of Labor and Immigration, Wage Indexation for Australia? A Discussion Paper (Canberra: Australian Government Publishing Service, 1975), pp.2-6.
57. On the debate, see Riach and Richards, "The Lesson of the Cameron Experiment," op. cit., pp.21-35; Richard H. Snape, "Productivity, Costs and Employment," Australian Economic Review (2:1979), pp.65-71; and Barry Hughes, "The Real Wage Issue," Australian Bulletin of Labour, vol. 2 (September 1976), pp.1-17. A symposium on economic issues appeared in 1979, giving much attention to the real wage overhang debate. See "Economic Policy in Australia - Issues and Evidence," Australian Economic Review (1:1979), pp.15-97. See especially the papers by Neville, Gregory and Duncan, Corden, and Johnston.
58. D.R. Chapman and C.W. Junor, "Profits, Variability of Profits and the Prices Justification Tribunal," Economic Record, vol. 57 (June 1981), pp.128-139.
59. National Economic Summit Conference, op. cit., pp.330-342.

60. Movements in the absolute shares were not presented at the conference. However, these movements can be approximated by either adding the growth in the real wage to the growth in employment or by calculating the level of real GDP at the end of the period and multiplying by labor's share.
61. For examples of the 1960s literature, see J.P. Nieuwenhuysen, "Thoughts on an Incomes Policy for Australia," Journal of Industrial Relations, vol. 8 (March 1966), pp.1-12; K. Sloane, "Co-operation and Coercion in Wages and Incomes Policies," Journal of Industrial Relations, vol. 8 (March 1966), pp.13-24.
62. R.J. Hawke, "The Growth of the Court's Authority," reproduced in J.R. Niland and J.E. Isaac, eds., Australian Labour Economics: Readings (Melbourne: Sun Brooks, 1975), pp.46-47.
63. J.E. Isaac, "Wage Determination and Economic Policy," Australian-Economic Review (3:1977), pp.16-24; J.P. Nieuwenhuysen and J. Sloan, "Wages Policy" in F.H. Gruen, ed., Surveys of Australian Economics (Sydney: George Allen and Unwin, 1978), pp.103-106; R.I. Downing, "Inflation: Incomes, Prices and Social Policies," Australian Quarterly, vol. 46 (September 1974), pp.9-19; Anne Romanis Braun, "Compulsory Arbitration as a Form of Incomes Policy: The Australian Case," IMF Staff Papers, vol. 21 (March 1974), pp.176-177.
64. A.J. Phipps, "The Impact of Wage Indexation on Wage Inflation in Australia: 1975(2) - 1980(2)," Australian Economic Papers, vol. 20 (December 1981), pp.333-349.
65. Braham Dabscheck, "National Wage Case Decisions 1976: The Golden Age of Indexation," Journal of Industrial Relations, vol. 19 (March 1977), pp.65-70.
66. In the accord reached between the Labour Party and the unions just prior to the 1983 elections, "the maintenance of real wages" was set as a key objective of an incomes policy. National Economic Summit, op. cit., p.412.
67. National Economic Summit Conference, op. cit., pp.389-401, 407-426.
68. The discussion here follows arguments set forth in Daniel J.B. Mitchell and Larry J. Kimbell, "Labor Market Contracts and Inflation" in Martin Neil Bailly, ed., Workers, Jobs, and Inflation (Washington: Brookings, 1982), pp.199-238.
69. In the Harvester case, an early wage decision related to a tariff matter, what was then the Commonwealth Court of Conciliation and Arbitration, set a basic minimum wage on the basis of an informal survey of minimum living standards. Subsequently, as the court became aware of the implications of inflation for maintaining living standards, adjustments for inflation were incorporated into awards. Eventually, formal indexation was adopted. See P.G. McCarthy, "Justice Higgins and the Harvester Judgement," Australian Economic History Review, vol. 9 (March 1969), pp.17-38.

70. Withers, "Labour Markets in Australia," op. cit., pp.7-9.
71. Leonard Radic, "Majority Backs Arbitration Commission," The Age, October 5, 1981, p.17.
72. J.R. Niland, "Industrial Relations Reform: Why, How, and with What Objective?," unpublished address to Australian Institute of Political Science, Canberra, January 29-31, 1983, Department of Industrial Relations, University of New South Wales (1983), pp.23-24.
73. It was argued in the early 1970s that American-based firms were importing their collective-bargaining practices into Australia. See Diane Yerbury and J.E. Isaac, "Recent Trends in Collective Bargaining in Australia," International Labour Review, vol. 103 (May 1971), pp.421-452, especially pp.446-447.
74. Russell D. Lansbury, "The Return to Arbitration: Recent Trends in Dispute Settlement and Wage Policy in Australia," International Labour Review, vol. 117 (September-October 1978), pp.611-624.
75. Daniel J.B. Mitchell, Unions, Wages, and Inflation (Washington: Brookings, 1980), pp.137-155.
76. On the efforts of the Liberal government to change Australian labor law, see Don Rawson, British and Australian Labour Law: The Background to the 1982 Bills, Industrial Relations Papers (Canberra: Research School of Social Sciences, Australian National University, 1982); Margaret Kiloh, The 1982 Conciliation and Arbitration Amendment Bill and the Politics of Industrial Relations, Industrial Relations Papers (Canberra: Research School of Social Sciences, Australian National University, 1983); and Richard Mitchell, "Industrial Relations Under a Conservative Government: The Coalition's Labour Law Programme 1975 to 1978," Journal of Industrial Relations, vol. 21 (December 1979), pp.435-465.
77. N.F. Duffy, "Conscripts and Volunteers," Australian Bulletin of Labour, vol. 7 (March 1981), pp.88-104. Survey estimates of involuntary union membership varying from one-fourth to one third are cited in Rawson, British and Australian Labor Law, op. cit., pp.26-27.
78. A review of the implicit contracting literature can be found in Mitchell and Kimbell, "Labor Market Contracts and Inflation," op. cit., pp.213-218.
79. A.W. Phillips, "The Relation Between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom, 1861-1957," Economica, vol. 25 (November 1958), pp.283-299.
80. Allan Fels and Tran Van Hoan, "Causal Relationships in Australian Wage Inflation and Minimum Award Rates," Economic Record, vol. 57 (March 1981), pp.23-34; P.K. Trevedi and J. Rayner, "Wage Inertia and Comparison Effects in Australian Award Wage Determination, 1964-74," Economic Record, vol. 54 (August 1978), pp. 195-218; Calvin D. Siebert and Mahmood A. Zaidi, "Rational Expectations and Wage Behavior in the Australian Economy," unpublished working paper, University of Iowa and University of Minnesota, July 1983; Calvin D. Siebert and Mahmood A. Zaidi, "The Relation Between Profits and the Rate of Wage Change of Money Wages in Australia," unpublished working paper, University of Iowa and University of Minnesota, May 1983.

81. P.D. Jonson, K.L. Mahar, and G.J. Thompson, "Earnings and Award Wages in Australia," Australian Economic Papers, vol. 13 (June 1974), pp.80-98. A critique of this paper appears in the December 1976 issue.
82. W. Brown and D. Fuller, "The Impact of Over-Award Pay Upon the Australian Wage Structure," Australian Bulletin of Labour, vol. 5 (December 1978), pp.34-42; Keith Hancock, "Earnings-Drift in Australia," Journal of Industrial Relations, vol. 8 (July 1966), pp.128-157.
83. Fels and Tran Van Hoan, "Causal Relationships in Australian Wage Inflation and Minimum Award Rates," op. cit.
84. L.J. Perry, "Interwar Wage Movements and Trade Union Militancy in Australia," Australian Economic Papers, vol. 18 (December 1979), pp.229-242.
85. An exception is John McDonald, "The Relationship Between Wage Inflation and Excess Demand - New Estimates Using Optimal Extrapolative Wage Expectations," Economic Record, vol. 53 (December 1977), pp.490-507.
86. Michael Parkin, "The Short-Run and Long-Run Trade-Offs Between Inflation and Unemployment in Australia," Australian Economic Papers, vol. 12 (December 1973), pp.127-139. Critiques of the Parkin study appear in the June, 1975, December 1975, and June 1976 issues. Parkin responded in the June 1976 issue. In general, the existence of a natural rate of unemployment turns on a unitary coefficient for an expected price change variable in the wage equation. For evidence that the coefficient is approximately unitary and stable, see Michael G. Kirby, "A Variable Expectations Coefficient Model of the Australian Phillips Curve," Australian Economic Papers, vol. 20 (December 1981), pp.351-358.
87. B. Bhaskara Rao, "An Analysis of the Short and Long-Run Trade-Offs Between Unemployment and Inflation and Estimates of the Equilibrium Steady State Unemployment Rate in Australia," Australian Economic Papers, vol. 16 (December 1977), pp.273-284. See also B. Bhaskara Rao, "Inflationary and Efficiency Effects of Relative Wage Distortions: The Australian Case," Australian Economic Papers, vol. 19 (June 1980), pp.68-77.
88. T.J. Valentine, "The Effects of Wage Levels on Prices, Profits, Employment and Capacity Utilisation in Australia: An Econometric Analysis," Australian Economic Review (1:1980), pp.13-22.
89. Dennis Grubb, Richard Jackman, and Richard Layard, "Wage Rigidity and Unemployment in OECD Countries," European Economic Review, vol. 21 (March/April 1983), pp.11-39. The authors' basic equation explains wage change. However, it includes a right-hand side term in which lagged wage change is constrained to have a unitary coefficient. In the actual estimation, therefore, this term is shifted to the left-hand side, making the dependent variable the change in the rate of wage inflation. See p. 23.
90. L.J. Perry, "Inflation in the USA, UK and Australia: Some Comparisons," Economic Record, vol. 57 (December 1981), pp.319-331.

91. If an annual regression of the percentage change in weekly earnings per employed male unit ( $\%W$ ) is run over 1959-1981 against the annual change in the Consumer Price Index lagged one period ( $\%P_{-1}$ ) and the inverse of the unemployment rate ( $U^{-1}$ ), the following equation emerges:

$$\%W = 1.37 + 1.04 \%P_{-1} + 10.35 U^{-1} \quad R = .69 \quad D.W. = .17$$

The strong presence of serial correlation exaggerates the significance levels of the regression coefficients. Nonetheless, the coefficient of the inverted unemployment rate is not significant at conventional levels.

92. For some evidence on the cyclical behavior of Australian strike activity, see Philip Bentley and Barry Hughes, "Cyclical Influences on Strike Activity: The Australian Record, 1951-68," Australian Economic Papers, vol. 9 (December 1970), pp.149-170; L.J. Perry, "Trends in Australian Strike Activity: 1913-78," Australian Bulletin of Labour, vol. 6 (December 1979), pp.31-51.
93. A.J. Phipps, "Strike Activity and Inflation in Australia," Economic Record, vol. 53 (September 1977), pp. 297-319. The Phipps estimation period is 1960-72, i.e., it ends as the tempo of strike activity is increasing. Phipps finds that a time trend adds significantly to the variance explained by his strike equation. This suggests an exogenous upward shift in militancy not captured by the other variables Phipps considers.
94. W.M. Corden, "Wages and Unemployment in Australia," Economic Record, vol. 55 (March 1979), pp.1-19, especially, pp.2-5.
95. J.T. Sutcliffe, "Wages and Production," Economic Record, vol. 1 (November 1925), pp.63-72.
96. One study in the mid 1960s found that 8 percent of a small sample of Australian firms had profit sharing. See K.C. Piesse, "Fringe Benefits in Australian Industry," Personnel Practice Bulletin, vol. 21 (March 1965), pp.33-38. For a more recent and comprehensive survey, see Brian Sheehan, Employee Financial Participation, Department of Science and Technology (Canberra: Australian Government Publishing Service, 1981).
97. Pip Rath, "New 'in' Perks for Status," The Bulletin, January 4, 1983, pp.82-85.
98. See, for example, Jeff Carruthers, "The Emergence of Worker Co-operatives in N.S.W.," Work and People, vol. 7, number 5 (1981), pp.8-18. Such arrangements sometimes come into existence when the former owners decided to close the plant and the workers involved decide to purchase it to retain their jobs. See Anita R. Gibbons, "Employee Ownership - What has it Meant?," Work and People, vol. 7, number 1 (1981), pp.3-10.

99. Masanori Hashimoto, "Bonus Payments, On-the-Job Training, and Lifetime Employment in Japan," Journal of Political Economy, vol. 87 Part 1 (October 1979), pp. 1086-1104; Robert J. Gordon, "Why U.S. Wage and Employment Behaviour Differs from that in Britain and Japan," Economic Journal, vol. 92 (March 1982), pp.13-44.
100. Sheehan, Employee Financial Participation, op. cit., pp.31-32.
101. Radic, "Majority Backs Arbitration Commission," op. cit.. p.17.
102. For example, such contracts are found in the Melbourne newspaper publishing industry. The 1982-83 agreement between the employers and the Victorian Printing Operatives' Union specifies wages, holidays, differentials, paid leave, procedures for grievance processing and arbitration, etc. (Contract in possession of author.)
103. Rawson, British and Australian Labour Law, op. cit., p.9.
104. Major amendments came in 1947 (the Taft-Hartley Act) and in 1959 (the Landrum-Griffin Act). Other amendments occurred in 1951 (clean-up amendments following Taft-Hartley, 1974 (extending the law to the health-care industry), and 1980 (amending the union shop for religious objectors).
105. Arbitration awards accounted for about 60 percent of the increase in male weekly earnings increases during 1972-74, but 132 percent in 1974 as official wages caught up with actual, and earnings drift declined. In 1976, by contrast, arbitration awards accounted for 79 percent of male weekly earnings increases. "Summary of the Economic Situation," Australian Economic Review (4:1981), p.7.
106. Bureau of Labour Market Research, Youth Wages, Employment and the Labour Force, op. cit., p.36.
107. "Summary of the Economic Situation," Australian Economic Review (4:1982), p.19.
108. For example, see William A. Howard, "Centralism and Perceptions of Australian Industrial Relations," unpublished presidential address to Industrial Relations and Organizational Studies section of Australian and New Zealand Association for the Advancement of Sciences, Sydney, May 10-14, 1982, Monash University (1982).
109. D. Plowman, S. Deery, and C. Fisher, Australian Industrial Relations (Sydney: McGraw-Hill Book Co., 1980), pp.315-333.
110. J.R. Niland, "Industrial Relations Reform: Why, How, and with What Objectives?," op. cit., p.8.
111. For an example, see E. Edward Herman and Alfred Kuhn, Collective Bargaining and Labor Relations (Englewood Cliffs, N.J.: Prentice-Hall, 1981), pp.349-350.



112. Malcolm Rimmer, "Long-Run Structural Change in Australian Trade Unionism," Journal of Industrial Relations, vol. 23 (September 1981), p.325.
113. Stephen Deery, "Trade Union Amalgamations and Government Policy in Australia," Australian Bulletin of Labour, vol. 9 (June 1983), pp.190-207.
114. National Economic Summit Conference, op. cit., p.415.
115. Over 200 unions and associations reported to the Bureau of Labor Statistics in 1980. Union membership was 20.1 million in that year. See Courtney D. Gifford, Directory of U.S. Labor Organizations, 1982-83 Edition (Washington: Bureau of National Affairs, Inc., 1982), pp.57, 65. In 1978, the Bureau of Labor Statistics reported that there were over 600,000 members in local, unaffiliated unions, single-firm unions, municipal employee associations, and locals affiliated directly with the AFL-CIO. No information was given on the number of such groups. If they averaged, say, 1000 members each, another 600 organizations would be added to the count of unions. See U.S. Department of Labor, Director of National Unions and Employee Associations, 1979, bulletin 2079 (Washington: GPO, 1980), p.57. The data on the number of locals come from U.S. Department of Labor, Labor-Management Services Administration, Union Financial Statistics, 1976 (no date), p.4.
116. Year Book Australia 1982, op. cit., p.173.
117. See Appendix Table A-6.
118. See Appendix Tables A-7 and A-8.
119. For example, see D.H. Plowman, "Unions in Conflict: The Victorian Trades Hall Split 1967-1973," Labour History, no vol. (May 1979), pp.47-69.
120. Mark A. Haskell, "Green Bans: Worker Control and the Urban Environment," Industrial Relations, vol. 16 (May 1977), pp.205-214.
121. Clifford B. Donn, "The A.C.T.U., Trade Union Congresses, and Nation-Wide General Strikes," Labour History, no vol. (November 1979), pp.78-85.
122. Gerald Griffin, "White-Collar Unionism 1969 to 1981: Some Determinants of Growth," Journal of Industrial Relations, vol. 25 (March 1983), p.33.
123. Les Cupper and June Hearn, "Cross-Currents in Australian Trade Unionism," unpublished working paper, University of Melbourne, February 1980, p.11.
124. See Appendix Tables A-9 and A-10 for the data sources of Table 9. Since U.S. industry codes are not the same as Australian codes, the U.S. industries selected to correspond to the 15 Australian industries represent only portions of the sector.

125. The industries were selected based on availability in the International Labour Yearbook. Industries used are listed below. The industry name is preceded by the ISIC code which appears in the Yearbook. In some cases, where a source other than the Yearbook was used to construct the corresponding U.S. industry, the U.S. SIC code is shown after the industry name.

31: Food and beverage  
321: 322, 324: Textile, apparel, leather footwear (22, 23, 314)  
34: Paper and printing (26, 27)  
351: Industrial chemicals  
37: Basic metals  
381-383: Fabricated metal and machinery (34, 35, 36)  
384: Transportation equipment  
390: Miscellaneous manufacturing  
2: Mining and quarrying  
5: Construction  
7: Transport, storage, communications

Data not from the Yearbook were taken from Employment and Earnings, various issues. The results reported in the text are basically unchanged if confined to manufacturing industries only.

126. Two papers which express a skeptical view of the impact of the arbitration system on wage structure are Michael Keating, "Australian Wage Determination," Economic Papers, vol. 1 (November 1982), pp.64-73; and William Brown et al, "Occupational Pay Structures under Different Wage Fixing Arrangements: A Comparison of Intra-Occupational Pay Dispersion in Australia, Great Britain and the United States," British Journal of Industrial Relations, vol. 18 (July 1980), pp. 217-230. Yet both concede that Australian wage dispersion is narrower than in the U.S. Keating notes that it is also narrower than Canada and Japan and Brown et al note that it is narrower than in the U.K. The question then turns on whether it is narrower than other European countries. However, some European countries - notably Sweden which Keating cites - have institutional arrangements (such as "solidaristic" wages policies) which are designed to produce compression. In other words, countries which want to compress their wage structures can do so in various ways; Australia does it through the arbitration system. A study which is supportive of a compression effect is Keith Norris, "The Dispersion of Earnings in Australia," Economic Record, vol. 53 (December 1977), pp.475-489. Norris finds that high-wage industries have greater dispersion, suggesting that the arbitration system imposes a floor on the wage structure.
127. Official release of the Department of Employment and Industrial Relations, L82/266, May 31, 1983.
128. Richard Blandy, "The Political Economy of Incomes Policy" in Keith Hancock, ed., Incomes Policy in Australia (Sydney: Harcourt Brace Jovanich Group, 1981), pp.377-378.

129. Daniel J.B. Mitchell, "The Rise and Fall of Real Wage Insurance," Industrial Relations, vol. 19 (Winter 1980), pp.64-73.
130. D. Florman, S. Deery, and C. Fisher, Australian Industrial Relations, op. cit., pp. 296-299.
131. For example, 44 percent of full-time employees received superannuation benefits in Australia in early 1979. In that year, the ratio was reported to be 87 percent for private, full-time workers in the U.S. (Note, however, that the U.S. figure is biased upward by the exclusion of certain smaller firms, and the Australian figure is somewhat biased upward - relative to the U.S. - by inclusion of government workers). Source: Australian Bureau of Statistics, Employment Benefits Australia, February to May 1979, catalogue no. 6334.0, p.8; U.S. Bureau of Labor Statistics, press release USDL-80-409, June 27, 1980.
132. The author interviewed plant officials at the Woodlawn Mines near Canberra, an operation noted for various quality-of-worklife innovations unusual in Australia. These arrangements were privately-negotiated by the employer and the unions involved. Although an atypical compensation structure was included, the plant officials reported that they had no trouble obtaining approval from the relevant arbitration tribunal. On the Woodlawn Mines, see Peter W. Hickson, "An Australian Experiment in Labor-Management Relations," Town Hall Reporter, vol. 16 (June 1983), pp.11-12.
133. Keith Norris, "Labour Turnover and Job Durations in Australia," unpublished working paper given at seminar at Bureau of Labour Market Research, May 27, 1983.

Table A-1

## Government Employment Trends, 1971-81

	Civilian Government Employees <sup>a/</sup> (000s)	Civilian Government Employees as Percent of Total Civilian Employees	
	(1)	All (2)	Female (3)
1971	1,203.2	22%	20%
1975	1,436.9	25	24
1980	1,531.9	25	25
1981	1,549.3	24	25

<sup>a/</sup> Including government enterprises.

Note: Government employment as of June; total employment as of August.

Source: Year Book Australia, 1982, p.145, and similar tables in earlier editions; The Labour Force, cat. no. 6204.0, various issues.

Table A-2  
Civilian Labor Force Trends, 1966-82

Demographic Group	Unemployment Rate, Nov. 1980 (1)	Participation Rates			Proportion of Labor Force	
		1966 (2)	1974 (2)	1982 (3)	1966 (4)	1982 (5)
Males	4.4%	83.9%	81.0%	76.6%	69.4%	63.0%
15-19	14.0	66.6	58.3	62.5	7.1	5.9
20-24	6.3	93.7	90.0	89.3	8.2	8.7
25-34	3.6	97.7	97.0	94.9	14.6	16.8
35-44	2.0	98.1	97.2	95.1	15.8	13.9
45-54	2.6	95.9	94.2	90.0	13.0	10.3
55-59	3.1	90.9	87.6	79.1	5.2	4.4
60-64	2.5	79.4	72.4	47.7	3.5	2.2
65 and over	1.6	23.3	18.4	9.2	2.0	.8
Females	7.0	36.2	42.2	43.9	30.6	37.0
15-19	16.5	63.0	54.5	56.0	6.6	5.1
55-64	3.5	21.0	24.0	18.4	2.1	1.9
65 and over	1.4	4.4	4.0	2.5	.5	.3
Married	4.7	29.0	40.7	42.0	16.0	22.4
20-24	8.1	37.3	54.2	53.8	2.0	2.2
25-34	6.1	29.5	43.7	48.5	3.8	7.0
35-44	3.5	36.5	51.2	57.2	5.2	6.9
45-54	2.9	31.9	43.3	47.6	3.6	4.4
Other	10.5	49.7	45.3	47.1	14.6	14.6
20-24	9.0	90.2	80.8	82.6	3.1	4.4
25-34	6.4	81.7	81.7	75.6	1.4	2.6
35-44	4.5	70.4	72.6	63.3	1.0	1.2
45-54	5.6	62.3	60.2	59.7	1.3	1.1
All Groups	5.4%	59.8%	61.4%	60.0%	100.0%	100.0%

Note: Columns (2) - (5) refer to August of year shown.

Source: Australian Bureau of Statistics, The Labor Force, cat. no. 6204.0, 6203.0, various issues.

Table A-3.

## Unemployment Benefit Trends, Selected Dates 1972-81

Date	Maximum Unemployment Benefit as Percent of Average Weekly Earnings			Maximum Benefits	
	Married person with spouse (1)	Junior males <sup>a/</sup> (2)	Junior females <sup>a/</sup> (3)	Married person with spouse (4)	Single person under 18 years (5)
May 1981	37%	21%	23%	A\$111.10	A\$36.00
May 1980	38	24	26	107.70	36.00
May 1977	39	31	33	78.50	36.00
Oct. 1976	37	36	37	68.50	36.00
Oct. 1974	31	33	38	45.50	26.00
Oct. 1972	26	16	18	25.00	7.50

<sup>a/</sup> Benefits refer to single persons under 18. Earnings refer to persons under 21.

Source: Year Book Australia, various editions.

Table A-4

Recipients of Unemployment Benefits  
as Proportion of Total Unemployed, 1970-81

	Average Weekly Number Receiving Unemployment Benefits (000s) (1)	Number Unemployed (000s) (2)	Ratio of Recipients to Unemployed (percent) (3)
1970	13	91	14%
1971	15	107	14
1972	29	150	19
1973	40	136	29
1974	34	162	21
1975	117	302	39
1976	192	298	64
1977	216	358	60
1978	266	402	66
1979	306	405	76
1980	306	405	76
1981	310	390	79

Source: Number unemployed from U.S. Bureau of Labor Statistics,  
printout provided to author; unemployment benefit  
recipients from Year Book Australia 1982, p.738.

Table A-5

Estimated Ratio of Capital-to-Labor  
1966-67 to 1981-82  
(1966-67 = 100)

Year	Index of Capital to Labor
1966-67	100
1970-71	115
1974-75	131
1976-77	139
1978-79	131
1980-81	127
1981-82	127

Source: Glenn Withers, "Labor Markets in Australia: Implications for ASEAN-Australia Economic Relations," unpublished paper for Labour Market Behavior Workshop, National University of Singapore, July 30-31, 1982, Table 10.



Table A-6

## Union Structure by Size of Membership, December 1982

Number of Members	Number of Unions (1)	Percent of Unions (2)	Number of Members (000s) (3)	Percent of Members (4)
Under 100	46	14.3%	2.5	.1%
100 - 249	38	11.8	6.1	.2
250 - 499	25	7.8	9.1	.3
500 - 999	45	13.4	28.8	1.0
Total 1 - 999	154	47.2	46.5	1.5
Over 50,000	14	4.3	1,355.0	45.0
All unions	322	100.0	3,012.4	100.0

Source: Australian Bureau of Statistics, Trade Union Statistics, Australia, December 1982, cat. No. 6323.0, June 24, 1983.

Table A-7

Characteristics of Manufacturing Firms  
by Size of Firm, 1980-81

Number of Persons Employed	Percent of Enterprises (1)	Cumulative Percent of Enterprises (2)	Percent of Employees (3)	Cumulative Percent of Employees (4)	Wages and Salaries per Employee (5)
Less than 10	47.6%	47.6%	5.6%	5.6%	\$ 8,822
10-19	23.7	71.2	6.3	11.8	10,390
20-49	16.5	87.7	9.8	21.6	11,254
50-99	5.4	93.2	7.4	29.0	11,831
100-499	5.2	98.4	21.3	50.3	12,772
500 or more	1.6	100.0	49.7	100.0	14,356
Total	100.0	100.0	100.0	100.0	12,969

Source: Australia Bureau of Statistics, Enterprise Statistics: Details by Industry Subdivision, Australia, 1980-81 (Preliminary), cat. no. 8107.0, February 21, 1983, Table 2.

Table A-8

## Major Australian Employers, 1981

Firm	Number of Employees (1)	Cumulative Employment (2)	Industry (3)
Telecom	89,992		telephone
BHP	73,834		mining, metals
G.J. Coles	63,000		retail
Woolworths	44,500		retail
CRA	36,200	307,526	mining
Australia Post	32,746		postal
Myer	32,000		retail
Commonwealth Bank	31,179		banking
ACI	29,500		business services, glass
Bank of NSW	29,000	461,951	banking
Dunlop Olympic	23,907		tires, industrial products
ANZ	23,778		banking
Wormald	21,507		machinery, furniture
SEC Vic.	21,226		electricity
TNT	21,122	573,491	transport
GM- Holden	19,838		autos
CSR	16,100		sugar, mining
Burns, Philp.	15,800		wholesale, retail
Grace Bros.	14,500		retail, insurance,
			transport
James Hardie	14,500	654,229	asbestos, construction.

Source: Australian Business, April 15, 1981, pp.70-71.

Table A-9

Movements in Award Wages for  
Adult Males, Dec. 1969 - Dec. 1980

Industrial Sector	Annual Rate of Change of Award Wages, Adult Males		
	Dec. 1969 - Dec. 1974 (1)	Dec. 1974 - Dec. 1980 (2)	Dec. 1969 Dec. 1980 (3)
Mining and quarrying	15.8%	10.4%	12.8%
Engineering, Metals, Vehicles, etc.	14.8	9.9	12.1
Textiles, Clothing, and Footwear	13.9	11.1	12.3
Food, Drink, and Tobacco	15.1	10.2	12.4
Sawmilling, Furniture, etc.	15.2	9.8	12.2
Paper, Printing, etc.	13.9	9.8	11.6
Other manufacturing	15.2	10.0	12.3
Building and construction	15.9	10.4	12.9
Railway services	15.5	9.0	11.9
Road and air transport	15.9	7.8	12.4
Shipping and stevedoring	16.2	11.1	13.4
Communications	15.2	8.7	11.6
Wholesale and retail trade	15.7	9.9	12.5
Public authority, n.e.c., and community and business services	15.7	10.3	12.3
Amusements, hotels, personal service, etc.	15.6	9.9	12.5
Total Industries	15.3	10.0	12.4

Source: Australian Bureau of Statistics, Yearbook Australia, various issues,  
cat. no. 1301.0.

Table A-10

Movements in Average Hourly Earnings for  
Selected Groups; U.S., Dec. 1969 - Dec. 1980

Industrial Sector	Annual Rate of Change of Hourly Earnings		
	Dec. 1969 - Dec. 1974 (1)	Dec. 1974 - Dec. 1980 (2)	Dec. 1969 - Dec. 1980 (3)
Mining	8.1%	9.8%	9.0%
Primary metals (33)	8.9	9.8	9.4
Textile mill products (22)	6.3	8.4	7.4
Food and kindred products (20)	7.7	8.3	8.1
Lumber and wood products (24)	7.3	9.2	8.3
Paper and allied products (26)	9.7	7.8	8.6
Miscellaneous manufacturing (39)	6.0	7.5	6.8
Construction	7.2	6.4	6.8
Railroads (4011)	8.7	10.6	9.7
Trucking and warehousing (42)	9.6	8.7	9.1
West Coast longshoring <sup>a/</sup>	8.4	10.2	9.4
Communications (48)	9.4	9.5	9.5
Wholesale and retail trade	6.5	7.7	7.2
City government, noneducational <sup>b/</sup>	7.4	6.7	7.0
Hotels, motels, and tourist courts (701)	7.5	9.4	8.6
All industries <sup>c/</sup>	7.1	7.9	7.5

<sup>a/</sup> Base straight-time hourly wage for longshoremen.

<sup>b/</sup> Monthly earnings for full-time workers as of October.

<sup>c/</sup> Average hourly earnings for private nonfarm, nonsupervisory and production workers.

Note: S.I.C. codes shown in parentheses.

Source: U.S. Bureau of Labor Statistics, Employment and Earnings, United States, 1909-78, bulletin 1312-11 (Washington: GPO, 1979); Employment and Earnings, vol. 28 (March 1981), Table C-2; U.S. Bureau of the Census, Statistical Abstract of the United States (Washington: GPO, 1972 and 1982-83), p.433 and 309, respectively; U.S. Bureau of Labor Statistics, Wage Chronology: Pacific Maritime Association and the International Longshoremen's and Warehousemen's Union 1934-78, bulletin 1960 (Washington: GPO, 1977); Current Wage Developments, vol. 30 (September 1978), p.1.

Data for Figure 1  
(Reference only; not for publication)

Year	Days Lost in Industrial Disputes (1000s) (1)	Index of Real Labor Cost, Sept. (1966-III to 1973-II = 100) <sup>a/</sup> (2)	Index of Real Unit Labor Cost, Sept. (1966-III to 1973-II = 100) <sup>a/</sup> (3)
1966	732.084	90	102
1967	705.315	91	100
1968	1079.464	94	98
1969	1958.0	99	98
1970	2293.7	101	99
1971	3068.6	106	101
1972	2010.3	110	102
1973	2634.7	115	102
1974	6292.5	125	111
1975	3509.9	126	108
1976	3799.4	130	107
1977	1654.8	131	108
1978	2130.8	133	106
1979	3964.4	132	105
1980	3320.2	136	107
1981	4192.2	138	105
1982	2156.1	147	109

<sup>a/</sup> These indexes have been re-based on Figure 1 so that the initial observation = 100.

Source: Column (1) from International Labour Office, Yearbook of Labour Statistics, 1975 to 1981 issues; ABS catalogue no. 6321.0, 6322.0 for recent data. Columns (2) and (3) from data supplied to author by Department of the Treasury.