THE FUTURE OF WORK:
AN ECONOMIC PERSPECTIVE

F.H. Gruen

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Extracts from

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1. "...there are persuasive reasons why we can be certain that technical change in general and micro processors in particular have not been a major factor in the large growth of unemployment since the mid-seventies."

2. When real spending on goods and services falls significantly below its potential and consequently unemployment increases markedly, there is a recurrent tendency to discover 'structural' problems of some kind or other. In fact concern with deep seated structural problems seems to be a regular cyclical phenomenon."

3. I do not...want to argue that workers are not regularly thrown out of work by technical change - but only that there is no reliable or convincing evidence of any NER - as opposed to gross - displacement of labour as a result of technical change."

4. "What is less well known is the very striking inverse relationship between education and unemployment. Unemployment rates are three to four times as high for early school leavers."

5. "The eighteen odd percent of 15-19 year olds unable to find work at the present time are not suddenly less able or less motivated than their predecessors were ten years ago; predominantly it is economic conditions which have changed, not people."

6. "As we were reminded ad nauseam during the election campaign in the twelve months after August 1979 employment rose by more than 200,000... yet unemployment rose at the same time. Basically what happened was that the pool of hidden unemployment declined - probably by about three-quarters of one percent. Will the hidden unemployed continue to obtain jobs before they are offered to the recorded unemployed?"

7. "The formal and (mostly) legal egalitarianism between men and women does not prevent women from earning substantially lower average incomes than men."

8. "The coming resources boom...does have the potential to re-establish earlier real economic growth rates. But there are many obstacles. Perhaps the most important obstacle is that a large part of the potential increase in demand from the resource projects may be frittered away in higher inflation - rather than being translated into higher rates of real economic activity."

9. "...the generally successful obstruction of economic changes which has become widespread in Australia does not provide a propitious climate for an early resumption of previous growth trends in community living standards. ...if we could get near to the pre-recession real economic growth rates our unemployment problems would become considerably less though they would not disappear completely."
10. "In the longer run, there is every reason to believe that work will occupy a gradually declining proportion of people's lives. Typically, in OECD countries, one-third of the potential rise in real incomes has been taken in the form of less work."

11. "If a reduction in minimum wages is unacceptable, wage subsidies to selected groups whose labour productivity is low provides an alternative economic route towards the same end. Wage subsidies for handicapped workers are a generally accepted part of Australia's industrial relations landscape - some modest expansion of this principle to other difficult-to-employ groups may be the least difficult of a bunch of unpalatable options."

12. "The whole history of economic growth, at least since World War II, has been one of a slow increase in the proportion of professional, managerial and skilled positions and a declining percentage of unskilled work... I would expect this trend to continue and for work to become more demanding and skilled in the widest sense."
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This talk attempts to do three things. First it attempts to examine changing fashions in looking at the world of work - or our varying attitudes to technology. Second it attempts to describe the changing work picture in the seventies - the growth of unemployment both recorded and hidden; the growth in the number of self-employed, of part-time workers and of women taking part in the paid labour force. The third section speculates about the future of work. Whether there will be enough of it at some time in the near future, about likely changes in the nature of work and whether and in how far government policy can help to provide interesting and satisfying work for all.

I. Changing Fashions in Looking At The World of Work Or: Our Varying Attitudes To Technology.

The occurrence of such major social calamities as rapid and apparently uncontrollable increases in unemployment - not to mention the maintenance of unemployment at much higher levels than previously experienced - have usually led to a wide range of rival explanations. In this section I propose to discuss changing community attitudes rather than what I believe to be the real reasons for increased unemployment. This latter discussion is deferred until Section III of the paper. Partly guided by the
evidence and partly by ideological and other considerations, opinion gradually coalesces around a number of major explanations.

For instance in the late 'thirties the theory of the mature economy became one of those pieces of the conventional wisdom. Basically the thesis was that the calamitous unemployment record of the 'thirties in the United States was the result of the growing maturity - or even senescence - of the economy. A trinity of long term factors was blamed for this state of affairs - the decline in the rate of population growth, the passing of the geographical frontier of settlement and the dearth of great new industries to replace such previous engines of economic growth as the motor vehicle and the electrical power industries. The implication of the thesis was that the world and in particular the United States was confronting a totally new situation requiring new remedies designed to counteract the increasingly sclerotic nature of western economies.

Let me remain in the US but now move to the period from 1958 to 1964. Over this seven year period, US unemployment was around 50 per cent higher than in the immediate post-war period. This unsatisfactory performance gave rise to two broad explanatory hypotheses: the first focussed on the reduction of spending on goods and services - or what economists call the shortage of aggregate demand, whilst the second blamed the increase in unemployment on a structural transformation of the economy and in particular on technical change and what was then popularly called automation. Many regarded automation as qualitatively different
from previous technical change and it was often identified as the major cause of the higher unemployment. To quote a textbook published in the early 70's:

"The public concern with the problem (of automation and unemployment) was fed by newspaper, magazine and TV reports about the plight of workers who had been displaced by automation and the spectre of mass unemployment began to haunt the nation".1

Of course, after 1964, American unemployment rates began to drop and, under the impetus of more rapid economic growth (and the Vietnam War), returned reasonably promptly to the pre-1958 levels where they remained during the rest of the sixties. In as far as it is ever possible to get convincing evidence in the social sciences, the post-1964 experience confirmed decisively the diagnosis of those who held that the shortage of aggregate demand (i.e. the low level of spending on goods and services) was responsible - at least in the main - for the high levels of US unemployment between 1958 and 1964.

As pointed out by Peter Sheehan in his recent Penguin Crisis in Abundance, since the mid-1970s those on the centre-left of Australian politics have been looking increasingly at technological change as the central past and prospective cause of unemployment. He points to the stress on technology in Mick Young's book I Want to Work and to many statements by Bob Hawke during 1978 and 1979.2

Further on the left we get Wheelwright and Windschuttle in 1977 and 1979 respectively quoting with approval the cybernetics pioneer Dr. Norbert Wiener's 1949 dictum that

"the automatic machine is the precise economic equivalent of slave labour. Any labour which competes with slave labour must accept the conditions of slave labour... this will produce an unemployment situation in comparison with which the present recession and even the depression of the 'thirties will seem a pleasant joke."

It is perhaps surprising that this authority should be quoted so approvingly when his forecasts were not operational for a quarter of a century.

Of course the mere fact that an eminent scientist was wrong in 1949 does not prove that such fears are unfounded more than thirty years later. However there are persuasive reasons why we can be certain that technical change in general and micro processors in particular have not been a major factor in the large growth of unemployment since the mid-seventies.

1. Firstly the growth of unemployment was much too great and sudden to have been caused by variations in the rate of technical change or the introduction of micro processors. Such sudden discontinuities as the 150 per cent increase in unemployment in less than twelve months would not result either from the introduction of micro processors or from the acceleration of technical change.³ The case studies commissioned by the Myers

³ For instance, according to a 1970 survey by the then Department of Labour & National Service the gross displacement of labour from the introduction of new technologies averaged 0.6% over the three years of the survey— and two-thirds of these workers were found other jobs within their existing firms— almost invariably in positions of equal or higher status.
Committee "contain almost no evidence of retrenchment following the introduction of word processors" (para. 3.154, Myers Report).

2. Second, all the evidence available to us suggests that far from accelerating, the rate of labour productivity in most western economies has actually slowed down substantially over the last decade. According to OECD estimates, this decline started in such major OECD nations as the US, Japan, Germany and France as early as 1969 and since 1974, hourly labour productivity growth rates have slumped in practically every OECD nation. The evidence for Australia is not clear cut. The slowdown in output per hour worked since 1974 in Australia is capable of being explained by the slowdown in output growth and may not be due to any fundamental change in the Australian economy. In any case there has been no massive acceleration of technical change. If technical change were responsible for unemployment now when it was not before 1974, the question arises what it is that is so unique about the type of technical change since then - it is certainly not an acceleration in the rate at which new technologies are being introduced.
3. While unemployment in Australia has risen from one of the lowest to one of the highest OECD rates during the course of the seventies, the use of computers and of industrial robots in Australia remains one of the lowest among these same countries.4

My conclusion from these three episodes concerns the changing fashions of looking at the causes of unemployment and the world of work. When real spending on goods and services falls significantly below its potential and consequently unemployment increases markedly, there is a recurrent tendency to discover "structural" problems of some kind or other. In fact concern with deepseated structural problems seems to be a regular cyclical phenomenon.

4 For statistics on unemployment rates, see for instance Table 6 of the July 1980 OECD Economic Outlook, which shows that while Australian unemployment rates during the decade 1964-73 were some 40% below the OECD average, by 1978 and 1979 they were some 20% above this average. Of eleven OECD countries accounting for 90% of OECD employment, only two countries had lower unemployment rates in our base period (Germany and Japan - with Norway and Spain equalling Australia's low unemployment rates); in 1978 and 1979 only Italy, Canada and Spain exceeded our unemployment rates in both years - with Finland exceeding our rate in 1978.

For some discussion of international comparisons of "computerisation" etc., see John W. Bennett "Computers and Associated Technological Trends: Their Effects on Employment Patterns", Paper presented to the 10th Anniversary Conference of the ACT Society for Social Responsibility in Science (July 1980) and the references cited by Bennett.
The belief that technological change has recently contributed considerably to reductions in employment results from the fact that such reductions are more obvious and the consequent unemployment is more painful when the general level of unemployment is high. When alternative jobs are easy to obtain, the elimination of jobs resulting from technical change - or from import competition - does not arouse such strong emotions.

I do not of course want to argue that workers are not regularly thrown out of work by technical change - but only that there is no reliable or convincing evidence of any net - as opposed to gross - displacement of labour as a result of technological change. Nor would I be prepared to argue that a net increase in unemployment could not take place as a result of technical change.\(^5\) All I do argue is:

1. that gross displacement figures are not a reliable guide to the net employment effects of technological change.
2. no convincing evidence has been presented of a net employment displacement resulting from technological change.

\(^5\) Many economists would argue that, given flexible prices and wages, technological unemployment is logically impossible and that any unemployment is therefore the result of wage and price rigidities and possibly of transitional immobilities. This is basically a semantic issue. Granted the existence of rigidities and immobilities, technical change can (sometimes) be held to have caused some net increase in unemployment. The argument above is addressed to the common notion among non-economists that evidence of gross labour displacement is prima facie evidence of some net displacement.
3. that there are other much more convincing reasons for the
growth in unemployment. I refer here to the decline in real
aggregate demand and the halving of the Australian economy's
growth rate after 1974. This is a subject I will refer to
again below.

Before discussing the changing work picture in the
seventies, I would like to conclude this section on technical
change with two further comments about the Left's criticism of
technological change in western capitalist economies. Consider
the following concluding quote from Windschuttle's discussion of
technology.

Technological developments, he writes

"might have been used to benefit people. They might
have eliminated many of the more boring, routine
aspects of work and allowed scope for more creativity
and job satisfaction. Technology, however, is not a
neutral factor. When it is introduced by a social
system like ours and designed to serve large
corporations which are organized on hierarchical,
centralized, authoritarian lines and whose only goal is
profit, then the technology acts to further those forms
of organization and that goal. The development of
technology today is working against the interests of
the majority of Australians. We are witnessing not
progress but deterioration, reflected in the declining
quality of work available to people and in the growing
unemployment inherent in the whole process." (Keith
Windschuttle, Unemployment, Penguin Books, revised

Two notions here deserve further examination, namely that
technological advance is working against the interests of the
majority of Australians by raising profits (presumably largely at
the expense of wages) and by "the declining quality of work
available" (my emphasis).
While innovations are undertaken by management with the aim of increasing profits - or at the least of avoiding losses - the evidence in western countries suggests that - over a period of five to ten years - the benefits of such technical change is largely passed on to the general public in the form of price reductions and/or lesser price rises in those industries where productivity gains are greatest. Salter's work in the late fifties on the US and the UK economies originally showed that the gains of increased productivity have not been appropriated directly in the form of increased profits but instead have been passed on to consumers. This was confirmed by later studies by Reddaway, and by Wragg and Robertson. For the Australian economy similar results have been obtained by Sampson and Kaspura. Kaspura's most recent paper on the subject suggests that "nearly all the gains from technological change (95 per cent on average) contribute to reductions in relative prices". Kaspura examined Australian manufacturing industries (surely one of the less competitive branches of the economy) over the nine year period 1968-69 to 1977-78. If productivity gains are likely to be cornered anywhere by large corporate interests, it is going to be in Australian manufacturing; yet we find that even here most of the gains from productivity growth are passed on to the public over a period of half a dozen years or so.

The charge that technology leads to decreases in skills used by workers is an ancient complaint of the Left. Eloquent descriptions of craftsmen's skills being rendered redundant can

be found in Marx's *Capital,* more recently Braverman has updated this Marxian critique. The issue here is very similar to that of technical change displacing labour; it is easy to produce examples of skills being rendered redundant by technical change; on the other hand other, newer skills are required by newer technologies. There is little reason to believe that, on balance, technical change leads to fewer skills being required by the workforce. On the contrary, the whole history of economic growth at least since World War II has been one of a slow increase in the proportion of professional, managerial and skilled positions and a declining proportion of unskilled work. The Myers Committee is also of the view that

"...on average, particularly in the longer term, the likely new technologies will increase the number and range of skilled intellectual tasks and decrease the number of unskilled tasks. In part this is likely to be because unskilled tasks are usually easier to automate and in part because, as the educational standards and aspirations of Australians rise, it will be harder to get people to do the less attractive unskilled tasks." (Para. 3.201)

A 1979 ABS survey found that 70% of Australian employees believed they used their existing skills "often or most or all of the time" and only 7.3% used existing skills "never or rarely". Furthermore, over half the employees believed they were able - in their work - to develop job skills "often or most or all of the

7 The increasing proportion of professional and managerial jobs is well documented in Australian occupational statistics. Using the Broom et al. study of The Inheritance of Inequality (p.158), and its 1973 survey of Australian males, Peter Scherer has estimated that skilled manual occupations have grown from about 24 per cent of non-farm manual occupations in the generation of respondent's fathers to about 45 per cent in the generation of respondents' sons.
II. The Changing Work Picture in The Seventies

The most important change during the seventies was the drying up of opportunities for paid work. This had a whole range of effects which will be listed and discussed in this section.

(a) The growth of recorded unemployment

The spectacular four-fold increase in the recorded unemployment rate from mid-1974 when it was 1.5% to the mid-1978 figure of 6% has been unprecedented in Australia's post-war history. Within this four year period there was a very rapid (2.5 percentage point) rise in unemployment rates for nine months from mid-1974; then virtual stability until the end of 1976, followed by a further 1.5 percentage point rise until mid-1978. Since then there has been little consistent movement in seasonally adjusted unemployment rates. By international OECD standards, this rise appears to be one of the larger increases in recorded unemployment rates over this period. From being in the bottom third among OECD nations in terms of recorded unemployment rates, we have moved into the top - or worst, third - in company with Spain, Italy and Canada.9

8 Nor would it be correct to paint a picture of general dissatisfaction with existing jobs. According to another 1979 ABS Survey a quarter of Australians are "very satisfied" with their job; more than half are "satisfied" (i.e. 78-79% are satisfied or "very satisfied"); only 2.9% are "very dissatisfied" and a further 6.5% are "dissatisfied" (ABS No.6334.0). One could also expect that the occupational shift from manufacturing to the service sector (in part the result of technological progress in manufacturing) tends to lead to more pleasant jobs - whether skilled or unskilled.

9 During 1980 there was probably some relative improvement in Australia's position and further improvement can be expected in 1981 - when Australia's unemployment rate may decline whilst that of most other OECD countries will deteriorate.
This four-fold increase in unemployment has not been spread evenly over the community - so that four times the proportion of the work force is now subject to unemployment. While the proportion subject to unemployment has increased, there has also been a very significant increase in the average length of unemployment. One can illustrate this by comparing 1968 - a year of reasonably full employment when the unemployment rate averaged 1.5% - with 1979 - a year of the new high unemployment plateau of around 6% which we have now experienced for three years. While the average unemployment rate in 1979 was about four times as high as in 1968, the proportion of the labour force experiencing any unemployment during the year has only doubled - i.e. it has moved from 7.5% in 1968 to 15.2% in 1979. In other words in 1968 7.5% of the labour force was unemployed - on average - for 10 weeks, whilst in 1979 15% of the workforce were unemployed - on average - for some 21 weeks.

It is well known that unemployment has affected particularly severely some groups such as the young - with 15 to 24 year olds increasing their share of all unemployment - whilst their proportion of the labour force has tended to decline.

What is less well known is the very striking inverse relationship between education and unemployment. Early school leavers have very much higher unemployment rates. The point can be made tellingly with a couple of statistical estimates by Paul Miller, based on the 1976 Census. The unemployment rate of

10 All Miller's estimates cited in this section refer to expected unemployment rates based on regression equations. I am indebted to Paul Miller's paper on "How Unemployment Rates Differ: The Influence of Education and Migration", Discussion Paper No.19, Centre for Economic Policy Research, ANU, January 1981. For the examples given here, similar unadjusted statistics for a later period are available from ABS 6235.0, Table 1.
15-19 year males leaving school aged 17 was 7.2%; the unemployment rate of a group similar in all respects - except that they left school at 14 years - was 26%. For 20-24 year olds the corresponding unemployment rates were 2.0% and 7.9% respectively; similar examples could be given for older age groups. A random cross sectional study of some 5000 seventeen year olds in 1979 found that "each additional year of schooling decreases the time it takes to find a job after leaving school by one month on the average and decreases by 1.75 months total unemployment of 17 year olds who had left school". In terms of average experiences these are very significant reductions. These research results suggest that the view sometimes expressed that schools do not prepare youths well enough to enable them to be productive workers probably needs to be treated with some scepticism.

But the main reason why later school leavers do so much better in the employment stakes may not be that they are so much better equipped by the schools - but because education acts as a screening device. We know that those who leave school early tend to be the lowest achievers (e.g. in terms of numeracy, literacy and word knowledge) and the least motivated. It is perhaps not surprising that these are also the least employable and that employers prefer keener and abler youths - when they can exercise a choice. That those who are keener to work, experience less unemployment is also suggested by Miller's earlier-cited work on the 1976 Census which indicates that

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11 School, Work and Career, by Trevor Williams et al. ACER Research Monograph No.6, p.95.
married men and women tend to have lower unemployment rates than those who are single or those who have been divorced or separated.12

These statistical curiosities highlight the controversy between the Right and the Left in this country on unemployment. To caricature the images conjured up: at one extreme is the stereotype of a person so unwilling to work and so lavishly provided with unemployment benefits that unemployment becomes an extended holiday - preferably on a beach somewhere; at the other extreme is the vision of youths whose spirit is crushed by their inability to obtain any work. The implication on the Right is that if the unemployed sharpened themselves up and tried harder, they could get jobs. While this is true in individual cases it is probably not true of the unemployed as a whole. The eighteen odd percent of 15 to 19 year olds unable to find work at the present time are not suddenly less able or less motivated than their predecessors were ten years ago; predominantly it is economic conditions which have changed, not people.

12 Some numerical examples - again based on estimates derived from the 1976 Census: For 20-24 year old Australians in metropolitan areas who left school aged 16 years - unemployment rate among married men 3.1%, divorced or separated men 11.7%, single men 9.4%. For women the corresponding figures are 3.4%, 9.4% and 7% respectively; for 25-29 year old men - 1.9, 6.9 and 6.3% respectively, and for women 2.4, 5.8 and 4.1% respectively. None of these differences are statistically significant at the 5% level - though some of the differences for the overseas born are. Over the age of 30 single men tended to have slightly higher expected employment rates than divorced and separated men, whilst divorced females had consistently higher expected rates than single females.
(b) The growth of hidden unemployment and the discouraged worker

To the layman it is obvious whether someone is unemployed or not. If a person wants a job whilst being unable to get one, they are unemployed. But those who compile unemployment statistics need more rigorous definitions. The Statistician defines a person as unemployed who had actively looked for work in the previous four weeks — for instance by registering with the Commonwealth Employment Service and/or contacting an employer. But how actively does one need to look to be really unemployed? We know that when jobs are scarce many will not actively seek jobs because they do not believe they will be successful. Some of these may stay at school longer, others may look after children at home, or retire early.

There are basically two methods of estimating how many more people would have been working if there were more job vacancies. Firstly one can ask people. Secondly one can make a statistical estimate of any unusual changes in labour force participation rates which can be attributed to the changed employment situation.

Five surveys of persons not in the labour force have been conducted by the Statistician since 1975. Some of the relevant statistics are reproduced in Table 1. Answers to three questions are given. The Statistician asks respondents to the Population Survey who are not currently working one hour a week or more whether they wanted a job and whether they have taken active steps to look for work in the preceding four weeks. Those actively looking for work are classified as unemployed. As shown
### Table 1: Unemployment - Hidden and Procured

<table>
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<td>M  F  P</td>
<td>M  F  P</td>
<td>M  F  P</td>
<td>M  F  P</td>
<td>M  F  P</td>
</tr>
<tr>
<td>Number Unemployed ('000)</td>
<td>150 130 279</td>
<td>170 344 314</td>
<td>224 204 428</td>
<td>202 195 397</td>
<td>212 201 412</td>
</tr>
<tr>
<td>Per Cent of Labour Force</td>
<td>3.8 5.7 4.5</td>
<td>4.2 6.3 4.9</td>
<td>5.4 8.6 6.6</td>
<td>4.9 8.2 6.1</td>
<td>5.1 8.1 6.2</td>
</tr>
<tr>
<td>Wanted a job but not actively looking for one ('000)</td>
<td>10 368 378</td>
<td>96 450 546</td>
<td>93 432 525</td>
<td>119 491 610</td>
<td>110 466 576</td>
</tr>
<tr>
<td>Would like to work and intend to look for work in the next 12 months ('000)</td>
<td>6 105 111</td>
<td>59 165 224</td>
<td>n.a.</td>
<td>58 198 256</td>
<td>n.a.</td>
</tr>
<tr>
<td>Discouraged Workers ('000) (Statistician's Classification)</td>
<td>2 32 34</td>
<td>8 58 66</td>
<td>9 54 63</td>
<td>9 65 74</td>
<td>10 66 76</td>
</tr>
</tbody>
</table>

in Table 1 there are many more persons wanting jobs who are not actively looking for work than there are recorded unemployed. For instance in September 1979 there were estimated to be almost 400,000 unemployed, but a further 610,000 persons stated they would like a job even though they had not actively looked for work. Should one call all these "discouraged" workers? Since less than half of them (271,000 - or 44%) definitely intend to look for work within the next twelve months, one might argue that many of them were not very serious about wanting a job. Yet another category provided by the Statistician relates to discouraged workers - defined as persons wanting work but not actively looking only because they believed they would be unable to find work - either because there was no work in their locality or their occupation, or because they lacked the necessary training.

Identifying which of these three groups should be called the "hidden unemployed" is difficult - seeing that we are looking at an essentially subjective phenomenon - a person's desire for work and their perceptions of the likelihood of obtaining a job. Also, as Sheehan and Stricker point out in their forthcoming book on unemployment, 13 Thus of the 610,000 persons wanting a job, 125,000 gave, as the main reason for not actively looking for work that they preferred to look after children.

14 Those who have other reasons for not looking for work are not classified as "discouraged" workers by the Statistician - e.g. a woman who says she has to care for her family, but that anyway there are no jobs.
on Hidden Unemployment, there are a large number of persons on the fringes of the labour force whose likely return to work if economic conditions improved remains obscure — at least on the basis of the Statistician’s surveys of persons not in the labour force.

However, whichever of these three definitions of hidden unemployment is used, it is obvious that the number of hidden unemployed has risen rapidly in the four years to September 1979 — more rapidly than those officially recorded as unemployed. Furthermore there appear to be many more females among the hidden unemployed than males, though the latter group has risen more rapidly from a very low base in November 1975.

Let me now turn to the second method of estimating the hidden unemployed — i.e. looking at changes in labour force participation rates. After the start of the recession, trends in labour force participation rates have changed markedly. Especially among older male age groups the proportion in the labour force has slumped, whilst the growth of female participation rates slowed down substantially after 1973.15

15 For some representative figures: Between August 1969 and August 1973, the participation rate of males aged 65 and over fell from 23.3% to 21.3%; by August 1979 it had fallen to 11.5%. For males aged 60 to 64 years of age these three percentages are 78.2%, 76.1% and 53.5% respectively. For females aged 45 to 54 the increase from 38.9% in August 1969 to 46.2% in 1973 was slowed to 46.8% in 1979. For females aged 35 to 44 the relevant three percentages are 42.1%, 51.5% and 57.1%.
Projections I have made on the basis of past trends in labour force participation rates suggest that by mid-1979 somewhere between 3 and 5.25 per cent of people had not entered the labour force who might have been expected to do so on the basis of the previous high-employment experience.16 In other words hidden unemployment by mid 1979 may be put at somewhere between 3 and 5.25 per cent - in addition to the recorded unemployment rate of about 6%. Peter Sheehan using a a somewhat different projection technique obtains a slightly higher estimate for hidden unemployment - 5.7% in August 1979. Both projections show much higher rates of hidden unemployment among women; in my case particularly among married women.

The evidence of changing participation rates suggests that hidden unemployment increased from about the September quarter 1975 until mid-1979. As documented by Windschuttle there was a persistent and loud campaign in many news media against dole bludgers in the earlier part of this period. Again public opinion polls recorded some 40 to 50% believing that the main cause of unemployment was unwillingness to work. The resulting stigma could influence registration with the Commonwealth Employment Service by the hidden unemployed. Since CES registration is regarded as prima facie evidence of "actively looking for work", the Statistician's unemployment estimates could also be affected.

16 The period 1969-1974 was used as the base for the projections. However similar estimates are obtained if the period 1966-1973 is used.
How have the hidden unemployed coped financially? Many would have had to rely on inter-family transfers - from parents and spouses; not to mention, in the case of the older hidden unemployed, their grown-up children who are income earners. Some would also have had personal savings to rely on. In spite of these financial sources there is little doubt of increasing financial hardship for many - as shown by the greatly increased demands on voluntary welfare agencies.

Increasing demands have also been made on government's income support schemes - apart from the unemployment benefit system. An increasing proportion of males over the age of 55 years are on service and invalid pensions and, according to the Social Welfare Policy Secretariat "reduced employment opportunities seem also to have increased to some extent the numbers of age, service and wife pensioners, widow pensioners and supporting parent beneficiaries".17


Information compiled by M.G. Carter and R.G. Gregory suggests that the percentage of males on service and invalid pensions increased as follows (all comparisons are for the four year period 1975 to 1979): 55-59 year olds, 2.1 percentage points; 60-64 year olds, 16.5 percentage points. These are considerably larger than the increases on unemployment benefits of males in these age groups. For 65 years and over the proportion on old age pensions is estimated to have increased by 16.4 percentage points; a further 1.9 percentage points represents extra service and invalid pensioner recipients.
As we were reminded ad nauseam during the election campaign, in the twelve months after August 1979 employment rose by more than 200,000 i.e. by more than the increase in the labour force (based on unchanged participation rates) - yet unemployment rose at the same time. Basically what happened was that the pool of hidden unemployment declined - probably by about three-quarters of one percent. Will the hidden unemployed continue to obtain jobs before they are offered to the recorded unemployed? I have no way of answering this question but there is certainly a good deal of hidden unemployment remaining - people who could be drawn into employment before recorded unemployment numbers need be reduced by any expansion in employment opportunities.

(c) The growth in the number of self-employed

Another change since the onset of the recession in 1974 has been the growth in the number of self-employed. Before 1974 the proportion of self-employed had been static or slowly declining; since 1974 the number of self-employed has grown quite dramatically so that there are now around 125,000 extra self-employed than would exist if previous proportions had remained unchanged (two-thirds of these are males).

We do not really know much about this change. This growth could be caused by the increased burden of income tax which - as Russell Mathews showed so well at last year's AIPS Summer School18 - employers and the self employed have managed to

avoid increasingly in the latter half of the seventies. Or the growth could be caused by the higher wages and other costs such as workers compensation, overtime, holiday pay etc. which are associated with regulated wage employment in such industries as construction and transport. Such charges can be avoided if employers sub-contract work out and the former employee becomes self-employed. Alternatively these self-employed may be refugees from unemployment "who work as street corner musicians, casual gardeners, or in other low productivity, low income activities, regarded as acceptable only because wage and salary earning employment is so hard to find?" 19 Covick has shown that the estimated average income of the non-farm self-employed has fallen steadily over the last five years so that it is now lower than that of employees - though it used to be about 40 to 60% higher. There is little point in further speculation on these issues here. I content myself with pointing out that this is probably at least in part yet another reaction to the shortage of employment opportunities which has existed since 1974.

(d) The Growth of Part-time Employment

There has been a steady increase in the number and proportion of employees working part-time since the beginning of the Labour Force Survey in the mid-sixties. 20 For instance over the period May 1964 to May 1972 full-time employment grew by 2.2 per cent per annum, whilst part-time employment increased at more than twice that rate - by 4.5 per cent. In this respect - as in

20 Part-time employment refers to those employees who work less than 35 hours a week.
so many others we have been discussing here - there was a sharp 
break in previous trends during the course of the seventies. 
After May 1972 the growth rate for part-time employment more than 
doubled (to 9.3 per cent per annum from May 1972 to May 1978) 
whilst that of full-time employment slumped (to 0.6 per cent per 
annum). 21

As pointed out in Treasury Economic Paper No.4, this growth 
can be attributed both to demand and supply factors. The growing 
importance of service industries, which tend to have more 
concentrated daily or weekly workloads, is one important factor. 
Another is probably the lower hourly costs of employing part-time 
labour because of lower costs incurred for annual and long 
service leave, sick leave, not to mention superannuation and 
other employment benefits. According to a recent ABS 
publication, almost three quarters of all full-time employees receive one or more such employee benefits. (Cf. Table 12, 
No.6334.0); whilst such benefits are much less frequent for 
part-time employees. Another reason for the faster growth of 
part-time employment is that such labour can be used more 
productively as it can be hired when it is most needed.

However one should not exaggerate the extent of the shift to 
part-time work. Some 85 per cent of all employees still work 
full-time, compared with 90 per cent in 1966. Some 93 per cent

21 These statistics and some of the succeeding comments are 
based on Treasury Economic Paper No.4: Job Markets, 
pp.54-60. The latter growth rates relate to the period May 
1972 to May 1978. Since 1979 full-time employment has grown 
more rapidly.
of total hours worked by employees are worked by those employed full-time, compared with 95 per cent in 1966.

About 80 per cent of the part-time labour force are women; in particular married women - who make up 61.5 per cent of the part-time labour force. Another, much smaller group which one might mention separately are part-time workers still at school - of whom there are around 75,000 (or 7.4 per cent of the part-time workforce). Most part-time workers prefer not to work longer hours; among married women this is true of 90 per cent of part-time employees. But even among men and other women the proportion is in excess of 75 per cent (cf. ABS No.6203.0, July 1980, Table 15).

(e) The Growing Female Labour Force

The last aspect of the changing work picture which will be dealt with explicitly here is the increasing female labour force. By 1980 some 45% of adult women were either in jobs or actively seeking work - more than twice as great a proportion as twenty years earlier. For married women the growth in the participation rate was a good deal greater. After World War II the Australian female labour force participation rate was among the lowest of the industrialised countries; by 1977 Australia had caught up with the bulk of the OECD countries.

22 In the case of the male part-time work force, those still at school make up a larger proportion - 15 per cent.

23 The most recent issue of the Australian Economic Review (4/80, p.62) points out that the proportion of involuntary part-time workers has increased in 1980 - from 12.6 to 14.7% for all part-timers.
Both economic and social factors have been important in the growth of female participation rates. The increasing proportion engaged in service industries and the declining proportion in male-dominated, unskilled, manual occupations have both favoured increased female participation. According to a recent study by Sandra Eccles, almost 80 per cent of the increase in the female employment share in the seventies was the result of this structural change in the Australian economy namely towards more female-intensive economic activities (such as community services, wholesale and retail trade, finance, insurance and business services etc.).

Among social factors one should refer to the demographic changes which have concentrated child-bearing for most women within a narrow span of years; the majority completing their child bearing within five to seven years. This, coupled with a changing attitudes towards female employment, has provided the social conditions allowing economic forces to draw an increasing proportion of women into the workforce.

On the other hand, the rapid increase in women's participation in the labour force did not result in a more even distribution of women among professions. According to the 1976 Census half the working women were to be found in nursing, teaching, sales, clerical work and domestic service (including housekeepers, cooks, maids etc.). This is broadly the pattern prevailing since the early sixties - though it is perhaps

possible to see some early signs of a gradual relaxation of sexual job segregation. I refer to the larger proportionate female increases in such traditional male professions as architecture, engineering, surveying, medicine and law - not to mention the male-dominated manual occupations of toolmakers, plumbers, mechanics, electricians and electronic workers.25

One of the most important economic changes affecting female workers in the seventies was the gradual advent of "equal pay" over the period 1969 to 1975. As a result, female award rates moved up from 72 per cent of male award rates in 1969 to a peak of 93.3 per cent in 1977.26 Again there has been a substantial increase in the proportion of the nation's wage bill paid to women - from 18 per cent in 1964 to 20.5 per cent in 1970 and 28.5 per cent in 1976. However equal incomes - on the average - between men and women have not been achieved. The ratio of earnings of full-time non-managerial employees has risen from less than 60 per cent in the late sixties to 77 per cent by 1976.27

25 Using the relative percentage changes between the 1971 and the 1976 Censuses. I obtained the latter information from L.B.B. Mikkelsen's "Labour Mobility in Australia", Ph.D. thesis, Department of Demography, RSBS,ANU.

26 It is perhaps significant that the ratio has not reached 100 and that, in the two most recent years available, there is evidence of a slight decline - to 92.1% in 1979. Since the index uses 1954 weights, not too much significance can be attached to its variations.

27 Since then there has been a significant reduction in the ratio to 72.2% in 1979 (unpublished ABS figures).
The formal and (mostly) legal egalitarianism between men and women does not prevent women from earning substantially lower average incomes than men. Women's traditionally greater domestic and child-rearing responsibilities disadvantage them in the labour market. As noted earlier, women have a much higher proportion of the less well-paid part-time jobs in the community. In addition their less continuous participation in the labour force probably affects their career prospects adversely. As a result, a disproportionate number of high status and high income careers remain with men. But these factors may not explain all the discrimination in the labour market against women.

III. Speculations About the Future of Work

In this final section I want to speculate about the future of work - firstly in the sense of whether there will again be enough of it at some time in the near future. Second, is work sharing part of the answer? Third, what are the other changes in the nature of work likely to be and lastly how far government policies and programmes can help or hinder in getting us back towards a society which is both more humane and makes fuller use of the talents of its citizens.

28 In this respect there are considerable differences between the sexes. For instance, in 1978, 8% of the male workforce aged 35-44 years was in the labour force for less than 52 weeks of the year; for females the corresponding figure was 36%. Similar contrasts exist for other age groups - though they are less pronounced for some younger age groups (especially 15-19 year olds where there is only a 7 percentage point difference).
(a) Exit Full Employment - For How Long?

In the suggestions made to authors by the Directors of this school appears the following:

There is a scenario of a continuously increasing national product and continuously decreasing opportunities for paid work for most sections of the community; shortages of required skills, endemic unemployment and a widening of the gap between rich and poor.

How likely is this scenario in the eighties?

Unemployment arises because of either (i) rigidities and immobilities of labour or of job opportunities; or (ii) real wages - perhaps especially of some groups such as the young or unskilled being greater than the value of output produced by such labour; or (iii) and perhaps most importantly, due to the failure of real aggregate demand to grow fast enough to employ the expanding labour force.

It is a mistake to think that there is a fixed stock of work which is in some sense technologically determined. On the contrary, as people receive income which they spend on consumption goods and services or on machinery, equipment and other investment goods, they create demands for employment and for work. Discrepancies between the amounts of work demanded and the amounts supplied occur only for the three above-mentioned reasons.

The single most important reason for the emergence of record post-war rates of unemployment after 1973-74 has been the halving of Australia's economic growth rate after that date. Economic
growth rates have still been positive on average. But they have been inadequate to provide jobs for all who want them. If we could get near to the pre-recession real economic growth rates our unemployment problems would become considerably less severe, though they would not disappear completely.

The reasons for this halving of Australia's economic growth rate after 1974 have been the subject of considerable controversy among economists. Some economists stress the overriding importance of the declining growth of real aggregate spending whilst others argue that this decline in spending is itself the result of low levels of profitability (or unduly high real wages) and the increased uncertainties associated with inflation. This is not the place for a detailed discussion of these complex and interrelated issues. In spite of controversy about the relative importance of these different factors, there is in fact considerable agreement on the elements for an economic solution to our problems among economists. This issue will be raised briefly in the final section of the paper.

The coming resources boom - not to mention the improved competitive position of Australian industry generally over the last 18 months or so - does have the potential to re-establish earlier real economic growth rates. But there are many possible obstacles. Perhaps the most important obstacle is that a large part of the potential increase in demand from the resource projects may be frittered away in higher inflation - rather than being translated into higher rates of real economic activity.

Closely related is the unsatisfactory climate of management-labour-government relations. Given the multiplicity of trade unions - not to mention the aggressive guerilla like tactics adopted by the more militant trade unions whenever their bargaining position improves - it is very difficult to envisage a return to the higher levels of economic activity of earlier decades - since these would automatically improve the bargaining strength of trade unions dramatically. A related problem is

30 One of my commentators raised the question why militant trade unions were apparently compatible with full employment in the fifties and sixties - but not in the late seventies and the present. For an answer it is necessary to sketch institutional changes in Australian industrial relations. Before 1967 sanctions prevented excessive trade union wage pushing. The breakdown in sanctions following the Clarrie O'Shea jailing led to a gradual loss of control over wages paid by Arbitral Authorities. The Commonwealth Arbitration Commission regained control over the movement of money wages in the mid-seventies - both as a result of its Indexation package and of the mounting level of unemployment which weakened unions' bargaining position. However, the pre-1967 balance of bargaining power has not been restored. Some unions have tested the limits of their power more fully - and the Arbitration Commission is more aware (as a result of the 1968-71 experiences) of the dangers of losing control over wage movements, and of unions' options to bypass Arbitration.
the bottlenecks likely to affect the rate at which real economic activity in these resource and resource-related industries can be expanded. Such bottlenecks include the availability of skilled labour in the engineering and construction industries and how quickly such labour can be trained here - or obtained from abroad; the availability of infrastructure (e.g. in the form of power stations, coal-loading facilities, roads, railways, etc.) and how quickly such bottlenecks can be overcome. State governmental negotiations with aluminium companies do not provide one with a great deal of confidence in the ability of such governments to take prompt and yet far-sighted action in the interests of their citizens.

Again the generally successful obstruction of economic changes which has become so widespread in Australia does not provide a propitious climate for an early resumption of previous growth trends in community living standards. I refer not only to widespread trade union resistance to change but also to the prohibition of some types of competition in petrol selling, the successful campaigns of independent road hauliers and stock brokers to be cushioned from those forces of economic change and competition which might damage them. Whether one looks at banks, insurance companies, livestock commission agents, booksellers, medical practitioners or solicitors - or practically any other economic group (including academics) - the general stance almost universally adopted is: Free and open competition is a good general principle - but it happens, for a variety of highly technical and abstruse reasons, not to be applicable to our
particular form of economic activity.

Even if we return to the real economic growth rates of earlier years, unemployment will not decline to the levels we were used to in the early seventies - let alone the levels recorded in the immediate post World War II period.

In his book *Exit Full Employment*, Barry Hughes documents the retreat from full employment in the 1945 White Paper sense of there being "a tendency towards a shortage of men [Yes - White Papers were sexist in those days, E.H.G.] instead of a shortage of jobs". He points out that this has been a gradual retreat during the fifties and sixties - even before the turbulent experiences of the seventies have brought economic issues of inflation and unemployment so much more into the public limelight. Given these long term trends, there are likely to be some rather deepseated factors which have led to this retreat from full employment - as defined in the 1945 White Paper.

Thus in a recent paper, Ian Harper has shown that, for a certain, given level of job vacancies we can now expect about 11½ more unemployment than before 1962.31 Gregory and Paterson have estimated that the increase in real unemployment benefits since early 1972 has probably increased total unemployment by about 14

per cent. This is not, of course, an argument for reducing such benefits - but for recognising the likely effects of such increases in benefits. On this matter one can only agree with the September 9, 1974, Press Release issued by Malcolm Fraser M.P. at that time Opposition Spokesman on Labour and Immigration - that "he accepted the principle that as unemployment rose so should unemployment benefits. The principle would be designed to protect individuals who quite innocently are caught in the turmoil of a mismanaged economy."


33 In addition, it is very important that we integrate provisions for children and spouses under unemployment benefits and the tax system - otherwise we can run into the types of anomalies which exist at present (December 1980) - where a married person who is unemployed, has a spouse and three children, may be marginally better off financially than obtaining a job on minimum award wages. (If the person concerned had five children, the family would be roughly 25% better off on the unemployment benefit system plus spouse and child allowances than earning minimum award wages, paying the appropriate taxes and getting the relevant family allowances).
 Increases in so-called "structural" unemployment - involving greater occupational, geographical and other mismatching of jobs and individuals has taken place not only in Australia but in most OECD countries in the last ten to fifteen years. For instance the secular growth of two income families is likely to have reduced geographical mobility of the Australian labour force - as would its gradual ageing. Such trends make it less likely that we will be able to return to the lower unemployment rates which we experienced in the now halcyon days of the fifties and sixties.

(b) Is Work-sharing Part Of The Answer?

If jobs are scarce, sharing available jobs is sometimes seen as a promising second-best solution - the first-best solution obviously being to have an adequate supply of jobs. But inevitable administrative and equity problems make work sharing only a short-run option. This is because rationing of work is even harder (and likely to be less efficient) than rationing goods. What is a fair distribution of work and how could such a rationing system be enforced? The possibilities of avoidance and evasion are manifold.

As an alternative to actual rationing some European governments - e.g. West Germany and France - have provided financial assistance to reduce dismissals and thus share work during the mid-1970s. But these were essentially short-term

expedients to cope with what were believed to be particularly severe short-run problems.

In the longer run, there is every reason to believe that work will occupy a gradually declining proportion of peoples' lives. Thus in Australia males have reduced the average number of years in the labour force by around 8 per cent in the postwar period – partly as a result of later average entry into the labour force and partly because of earlier retirement. Weekly hours worked by full time wage and salary earners have declined by over 5 per cent in the last 15 years; and the average number of weeks annual leave taken has risen by about 20 per cent over the last ten years. To the best of my knowledge no-one has added all this up to estimate changes in average lifetime hours of work in Australia.

According to some very rough OECD estimates, lifetime hours worked in a typical OECD country have been reduced by about one-third since 1950, whilst per capita real income increased by somewhat less than two-thirds. In other words about one-third of the potential rise in real incomes has been taken in the form of less work.36

35 This is based on a comparison of the early postwar censuses (1947 and 1954) with the two most recent censuses (1971 and 1976). For females there has, of course, been an increase. This is identical to the phenomenon of increased female participation rates documented above.

One reaction to high levels of unemployment by trade unions in Australia (and in many European countries including Germany and the U.K.) has been to press for a general reduction in working hours - not matched by a reduction in the nominal weekly pay packet. The increase in real labour costs per unit of output which is likely to result from such an increase in nominal hourly wage rates will not make any contribution to increasing the demand for work. On the contrary it is likely to adversely affect the aggregate level of paid work available.37

(c) Likely Changes In The Nature of Work

Many of the earlier mentioned long-term changes in the nature of work may be expected to continue. Part-time work will probably continue to increase - given the general movement towards the service sector (including the so-called information sector as part of this grouping). Female work participation is likely to move closer to that prevailing in other English-speaking countries and in the Scandinavian economies.

37 A shorter working week could conceivably increase employment counted in heads - if it induces employers to substitute more part-time work for full-time work. Proponents for a shorter working week argue that weekly productivity does not decline with a reduction of the standard work week. Given current relatively low weekly hours of work, this would appear to be unlikely. However, there is no consensus of opinion - or evidence - on this issue. For a canvassing of the issues some years ago, see "The Effect of the Length of Hours on the Quality of Work", in: 'Why Growth Rates Differ', by Edward P. Denison, Brookings Institution, 1967, pp.59-64.
More importantly, long term changes in Australia's industrial and occupational structure will continue to reduce the proportion of lower skilled manual and clerical tasks and increase what might be called intellectual tasks and the more highly skilled manual tasks associated with operating increasingly complex and larger scale equipment, machines and transport units. In other words I would expect occupational tasks to become more demanding and more skilled in the widest sense. These skills will not be confined to the acquisition of certificates at or near the time of entry into the workforce with little further training and learning during the next forty years of workforce participation. On the contrary, continuing skill acquisition - both formally and through learning-by-doing - are likely to become increasingly important features of the work process in the future.

Professor Peter Karmel has suggested that, with such a trend, the formal labour market will become increasingly biased against low achievers, particularly the young, inexperienced and ill-motivated.

"Their productivity may well be lower than the minimum socially acceptable real wage and this will produce an "under class" who will have difficulty in operating within the mainstream economy. There have always been low achievers, but in the past there have been jobs available for them at the going rates of pay. It may become increasingly difficult to fit these people into the labour market." 38

38 "Social Trends and Developments", by Peter Karmel, October 1980, p.18, mimeo.
It is difficult to say how realistic these fears are. If they are realistic one way of tackling the problem (or at least alleviating it) is by attempting to raise the productivity of the low achievers through training and remedial programmes.

There is evidence from evaluation studies of U.S. training programmes which suggest that many classroom, on-the-job and work-experience training programmes appear to justify their costs - in terms of the increased earnings of the trainees. Though the evidence is not conclusive, such government programmes aimed at specific groups probably also have a valuable role to perform in reducing high youth unemployment rates, long-term welfare dependency and, in extreme cases crime and drug abuse.

On the other hand some low achievers (and others) may opt out of mainstream career-oriented activities and settle for alternative lifestyles earning relatively lower real incomes from some non-regulated and possibly self-employed forms of economic activity. Another alternative - one that appears obvious to many market-oriented economists - is to lower Karmel's "minimum socially acceptable real wage" until such time as the market clears. However this is not a solution which commends itself greatly to non-economists. If a reduction in minimum wages is unacceptable, wage subsidies to selected groups whose labour productivity is low provides an alternative economic route towards the same end. Wage subsidies for handicapped workers are a generally accepted part of Australia's industrial relations landscape; some modest expansion of this principle to other difficult-to-employ groups may be the least difficult of a bunch
of unpalatable options.

(d) Concluding Comments: Can Government Provide Solutions?

A decade ago, this would have been regarded as a silly, fatuous question. A decade ago, Mr. Reagan's Republican predecessor in the White House proclaimed "we are all Keynesians now". But, since then the Keynesian consensus has been shattered and we are less sure of government's ability to provide us with the (relatively) stable economic job and price environment which we more or less took for granted in the fifties and sixties.

As I mentioned earlier (p.28 above) there is in fact considerable agreement among Australian economists of different political persuasions about the elements of an economic solution. What is needed to get us closer to full employment and price stability is an increase in real aggregate demand - coupled with a decline in the real cost of labour to employers.39 The basic problem is that it is not easy for governments to achieve these simultaneously. Government control over these variables has been eroded and since increasing real aggregate demand also increases unions' bargaining strengths, it may not be compatible with declining real labour costs. The (Keynesian and post-Keynesian) expansionist economists place their faith in obtaining a social agreement among competing domestic groups - coupled with tax penalties for offenders. Neo-classical (and broadly restrictionist) economists do not share this faith in the

39 See for instance, Peter Sheehan, _op.cit_, p.258, Note 1; T.J. Valentine, _Australian Economic Review_, January 1980, and the various references cited by both authors.
efficacy of incomes policies cum tax-wage bargains. Their restrictionist remedies of "squeezing out inflationary expectations" work very slowly and with large ensuing costs in terms of output foregone and hence of the real levels of income and employment the community can provide.

When the doyen of Western economics, Paul Samuelson, came to Australia in 1973 he ventured the view that the economist who could solve stagflationary problems plaguing the Western economies deserved a Nobel Prize. Since then many solutions have been proposed and Economics Nobel Prizes have been bestowed annually. But this particular Nobel Prize has not yet been awarded.